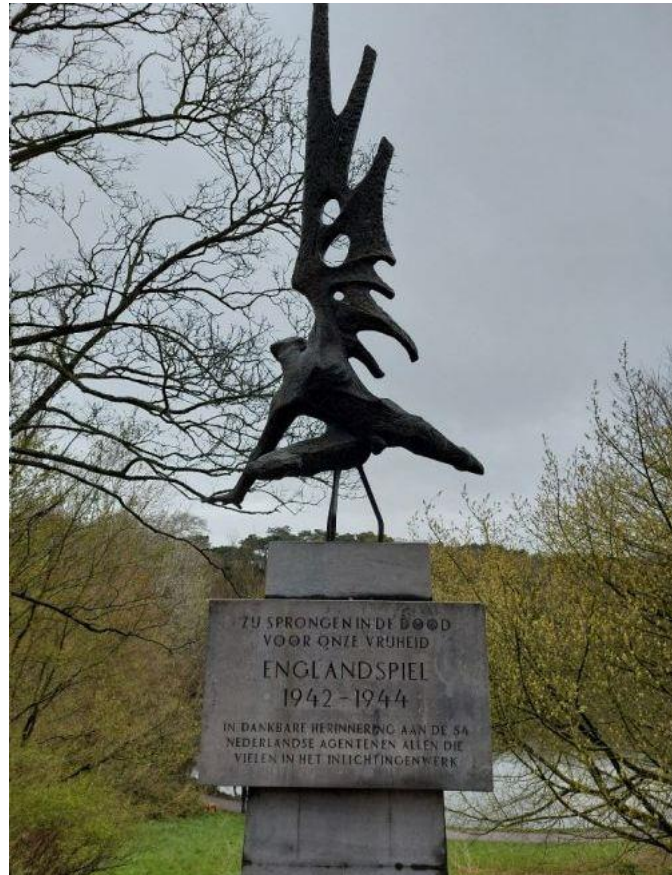


ENIGMA 2000 NEWSLETTER



<http://www.enigma2000.org>



Englandspiel Monument in The Hague is a fitting memorial to those SOE Agents who lost their lives due to the successful counterintelligence Operation North Pole as run by the German Abwehr

ISSUE 131
July 2022

<http://www.enigma2000.org>

Editorial

IN KEEPING WITH OUR ANNOUNCEMENT IN THE LAST NEWSLETTER [En130] ENIGMA2000 WILL NOT DISCUSS THE RUSSIAN/UKRAINE MATTER BEYOND TECHNICAL MATTERS

WE WILL NOT BE ANSWERING E MAILS SENT FROM THE PARTICIPATING COUNTRIES CONCERNING OUR SUBJECT MATTER

The Past two months have been somewhat difficult for yours truly with certain matters interfering with my intercept duties. The final tarring up of my property coming to an end as necessary since the storm. This has meant that whilst I still do the intercepts the preparation of the posts to group are perhaps a little slow. This can only get better and notwithstanding visitors shortly.

The conditions have been most variable; the A and K indices going up and down like the proverbial fiddlers' elbow. The effects on the frequencies used by most of the Number transmissions have reflected these changes as is noticeable from signal reports.

There's no return of the E07 1700z Sunday/Wednesday schedule it seems and E2k will stop reporting this schedule as NRH; searches have also been made and without much success.

E07 a schedules have all gone without any notice along with E17z schedule and of course the S06s series. E07 a and E17z will be discontinued from the voice section; if and when [?!] they return then we will again include.

We have been receiving many spoof emails which obviously we are ignoring; others have contacted us offering proper translations and such like and again we have ignored those because of the point of sending which we find suspicious. Look at the red straps above and you will understand why.

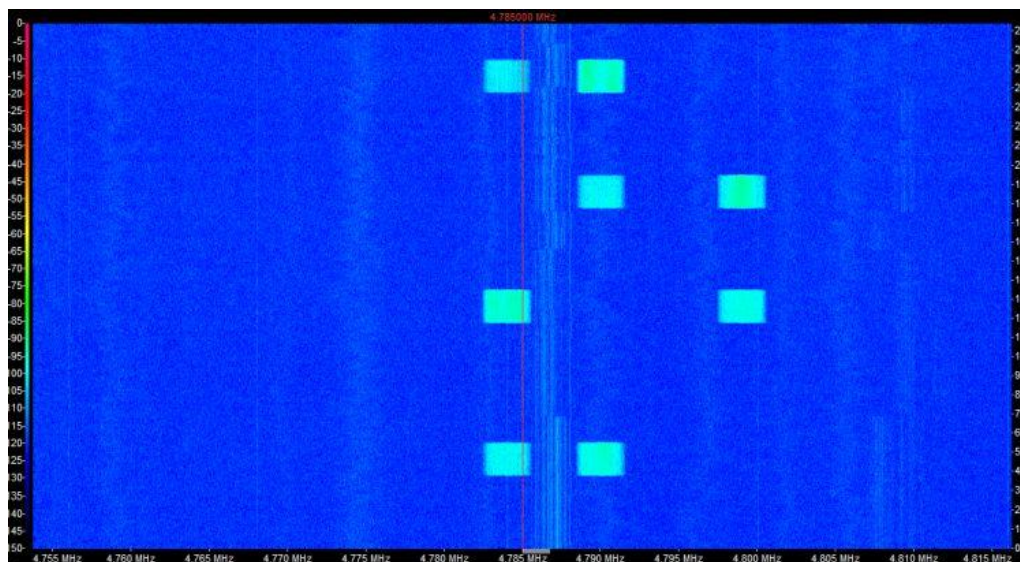
China is again in the news with some interesting snippets 'espionage' and exactly how much of it is fact or editorial licence from the west is, of course, unknown.

An E2k member and myself have met on two occasions to discuss matters UKR/RUS and we will, as stated above, stay shy of reporting this matter. There is more going on than the press at large can report and an appreciation of local news [which will not be reported here in translated form] seems heavily tainted with propaganda. Here's hoping for peace.

Request from 'E'

'E' writes, 'Around 4785kHz I have been hearing 3s bursts on a regular basis with 7 – 11s between at night. Can you hear this or is it just my local QRE?

This image is what E has heard on a narrower bandwidth that covered. Any ideas folks?



Sample of 4785kHz and that in Bandwidth
So, any ideas what this might be? My copy 14/06 at 1621z

Douglas Brittenagain!

We've been following the storyline of Douglas Britten for a few issues. There is a lot of information available with more made to us from those who knew him. We were recently contacted by a MaleAnon whose father served with DB. There was a short exchange between us in which I mentioned, in part, some of the information imparted in Prof Aldrich's book GCHQ.

"Certainly interested in his Cyprus activities; I'm sure you know he was instructed to target certain officers and OR's who had access that he didn't. I have also been informed he once tried, unsuccessfully, to create a wife swapping circuit for blackmail purposes too. Be pleased to put what you write in a newsletter."

In return MaleAnon writes, "Dad describes the houses having slats rather than windows in Cyprus due to the heat. He told me there was not an awful lot of privacy and you could hear lots. Douglas and his wife would row a lot. Once mum and dad heard his wife say 'if you don't do <something unspecified>, I will tell them what you are up to'.

My oldest sister used to play (with their child/children - I assume) in the Brittan household. She recalls finding something under a chair and pulled it out. She told me that Douglas got nasty and shouted at her. She was never allowed back in the household.

Dad and his peers could never understand where Douglas got his money from. Dad said he had a brand new Volvo. Obviously airmen like my dad did not earn much money back then.

Dad described how colleagues of Douglas used to say 'he is awfully nice - he lets us go home and he locks up the office for us'.

Dad said Douglas used to go to lots of parties. My late nan (who was a game old bird) and dad followed Douglas to one party and spied at him through the fence of the venue to see what he was up to! It would seem Douglas was viewed with extreme suspicion in Cyprus!

Mum (who was a civilian) and dad went to 'the Seargents office' to report their concerns about Douglas. Dad said the Seargent shouted mum and dad out of the office. Douglas then reported mum and dad for harassment.

Years later dad was in a canteen at another airbase (I think he was back in the UK) - a chap (I assume who knew dad) came up to him and said 'you know Douglas, you were right'.

Everything was there in plain sight!

So, MaleAnon, many thanks for this interesting input, providing a personal input on DB.

With these additional thoughts mentioned by MaleAnon it is interesting that PoSW writes: Interested to see that you saw the item on G3KFL in the 1968 Short Wave Magazine; I noticed another short piece in the same volume with espionage connections - although nobody knew it at the time. On page 353 of the August '68 edition of SWM there is a very short piece on the appointment of a new Post Master General, in charge of radio licensing among other things, a certain Mr. John Stonehouse, of whom the editor says, "He is a keen and able young man and his appointment as PMG constitutes promotion for him in the Govt. set-up."

This is the individual who was later uncovered as an agent for the Czech spying agency and, as it happens, was the subject of a Channel Four documentary shown in May called, "The Spy Who Died Twice", a reference to the fact that he faked his own disappearance and was presumed dead due to drowning before showing up again. I had not realised this was being shown as I have just about given up on television other than the film channels and the likes of Yesterday, PBS America, Smithsonian and Quest where sometimes there is something worth watching and I have long ago stopped buying the listings magazines - but I happened to be taking a quick trawl around the channels and stumbled across it quite by chance just as it was starting. One quote from someone who knew Stonehouse during the heyday of his political career was something along the lines of, "We all knew he was a crook, but no-one ever thought he was a spy". [Tnx PoSW]

John Stonehouse has a small mention by Josef Frolik in his book about his defection [The Frolik Defection]; indeed, it is thought that Stonehouse was responsible for Concordski and passed drawings and technical details of Concorde to his Czech handlers.

More interesting is that Josef Frolik named some Labour MPs who were known to him as spies. Any doubt, and I had none as I read his book, was taken away reading the Mitrokhin Archive. All there, Stonehouse and mates one of whom was known to be exceedingly greedy for his backhanders for product.



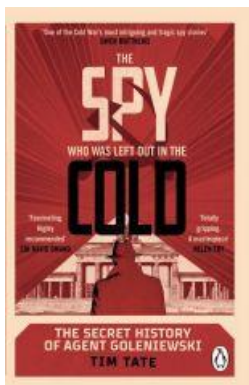
Russian Consulate in San Francisco – seems the burn bag is operational

A website worth a read [from a member]:

<https://www.bellingcat.com/resources/2022/02/11/radar-interference-tracker-a-new-open-source-tool-to-locate-active-military-radar-systems/>

Seriously interesting!

Recommended Reading



Those of you who have followed the Portland Spy Ring at any particular time will have come across the singular activity of the Polish Diplomat Michal Goleniewski. He was the bloke whilst working for the Russians and the British dabbled in a 'Hooton' from the Underwater Warfare depot in Dorset.

Well, it turns out that Agent Goleniewski has quite a lot of activity to own up to.

The story is more than interesting and Tim Tate leave apparently no stone unturned to write a very satisfying account of Goleniewski's activities, spying and personal across Cold War Europe.

Where did he end up after such activities? This too is covered in much detail – perhaps too much detail – but a satisfying book indeed. Well worth the cost and an in depth read.

Available from Amazon [[The Spy who was left out in the Cold: The Secret History of Agent Goleniewski: Amazon.co.uk: Tate, Tim: 9781787634015: Books](#)] I noted Steven Dorrell's review who states as a good read then strips his comment down. *My advice is don't bother with Dorrell's MI6 which I did not find a useful volume.*

NIA files chargesheet against two in espionage case

Abhinay DeshpandeHYDERABADAPRIL 22, 2022 20:42 IST

UPDATED: APRIL 22, 2022 20:42 IST

<https://www.thehindu.com/news/national/telangana/nia-files-chargesheet-against-two-in-espionage-case/article65345168.ece>

The accused includes a Pakistani

The Hyderabad unit of National Investigation Agency on Friday filed a chargesheet against two persons, including a Pakistan national, in an espionage case in Andhra Pradesh for their involvement in conspiracy and espionage activities with an intention to wage war against India.

The accused are Altafhusen Ganchibhai (27) alias Shakil from Godhra in Panchmahal district of Gujarat and Waseem from Karachi, Pakistan. While Altafhusen Ganchibhai was booked under Sections 18 of the Unlawful Activities (Prevention) Act and 120 B, 121A of the Indian Penal Code and 66C of Information Technology Act, Waseem was booked under Sections 17 and 18 of the Unlawful Activities (Prevention) Act and 120B, 121A of the Indian Penal Code.

The case was originally registered on January 10, 2020, by the Counter Intelligence Cell of Andhra Pradesh police, Vijayawada, and was reregistered by the NIA on December 23, 2021, pertaining to criminal conspiracy to carry out anti-national activities by Pakistani agents for obtaining crucial and sensitive information pertaining to Defense establishments from Indian Armed Forces personnel by engaging civilians as their agents using Social Media Platforms like Facebook, WhatsApp, Instagram etc.

The investigation by the NIA has revealed that Altafhusen Ganchibhai, on directions of Pakistan-based handlers had clandestinely activated WhatsApp by passing on OTPs received on Indian SIM numbers to his handlers in Pakistan for collection/transmission of sensitive information pertaining to Indian Defense forces and establishments.

“These SIM cards were subscribed in the name of Indian fishermen from Gujarat who were earlier arrested by Pakistan Maritime Security Agency in 2020 when they were fishing in the high seas,” the NIA officials said.

The agency established that these SIM cards were illegally routed back to India to the arrested accused Altafhusen Ganchibhai, who activated seven such SIM cards under the direction of his handlers in Pakistan. He was arrested on October 25, 2021. Waseem, who is currently at large, had routed money clandestinely through online Cryptocurrency exchange platforms to Indian agents for eliciting sensitive and classified information pertaining to vital Indians Defense establishments.

The NIA continues further investigation into the case.

<https://www.thehindu.com/news/national/telangana/nia-files-chargesheet-against-two-in-espionage-case/article65345168.ece>

US-Israeli cyber firm uncovers ‘massive’ Chinese-backed industrial espionage ring

Cybereason says group is ‘one of the most prolific and industrious’ in cyber threat landscape, targeted dozens of tech and manufacturing companies on 3 continents

By RICKY BEN-DAVID

9 May 2022, 6:05 pm

<https://www.timesofisrael.com/us-israeli-cyber-firm-uncovers-massive-chinese-backed-industrial-espionage-ring/?s=09>

An Israeli-American cybersecurity firm said Monday that it uncovered a “massive” hacking operation, apparently led by a hacking group believed to be backed by China, that had engaged in intellectual property (IP) theft and industrial espionage on three continents.

Cybereason, which is headquartered in Boston with offices in Tel Aviv, London, and Tokyo, said the group employed sophisticated methods and worked in an elusive manner to target technology and manufacturing companies in the US, Europe, and Asia and steal sensitive proprietary information.

Assaf Dahan, senior director and head of threat research at Cybereason, told The Times of Israel that the ring, known as the Winnti Group (and also tracked as APT41, Blackfly and Barium in cybersecurity circles) was “one of the most prolific and industrious groups in the cyber threat landscape,” and is known to operate on behalf of Chinese state interests.

The group has been active since at least 2010. Some known members of the group were indicted in 2020 by the US Department of Justice for computer crimes against some 100 companies in the US and other countries, including software development companies, computer hardware manufacturers, telecommunications providers, and gaming firms.

Dahan said Cybereason’s research showed that the Winnti Group engaged in “intellectual property theft and cyber espionage on a grand scale” since at least 2019, and possibly before. Cybereason began its research into the group’s industrial espionage operations last year, having been alerted by one of the targeted companies that something “funky” was afoot in its network, said Dahan, who is based in London.

He explained that Cybereason researchers were able to observe the group’s efforts to obtain sensitive data such as patent and product details, source codes, tech blueprints, and manufacturing instructions in real-time.

“Their level of stealth and sophistication was very high,” Dahan said, describing the group’s modus operandi in the context of this specific hacking operation as a “house of cards” made up of several components that were interconnected and interdependent.

“It’s an intricate and complex deployment process where the components all have to work together in a certain order. It’s very difficult to detect because each component [alone] doesn’t appear malicious. It’s a smart way of evading detection and it worked — they worked undetected for three years,” said Dahan.

During the analysis, Cybereason was able to uncover a previously undocumented “family of malware” including a new version of Winnti malware called WINNKIT, which Dahan described as a “very advanced cyber tool of Chinese origin, likely military intelligence.”

The malware allowed the hackers to conduct “reconnaissance and credential dumping [to pull multiple passwords and login information], enabling them to move laterally in the network,” according to Cybereason’s investigation, which the company dubbed Operation CuckooBees. The hack “allowed the attackers to steal highly sensitive information from critical servers and endpoints belonging to high-profile stakeholders.”

Assaf Dahan, senior director and head of threat research at Cybereason. (Courtesy)

Dahan said that the extent of the damage to the targeted companies was difficult to assess.

Cybereason said it had briefed the Federal Bureau of Investigation (FBI) and the Department of Justice on its research.

Western nations, and in particular the US and Britain, have over the years accused China of large-scale hacking operations aimed at pilfering vast amounts of data including trade secrets and scientific information as well as private details of citizens.

A Bloomberg report last year detailed how Chinese operatives were able to breach major companies by exploiting a major US tech supplier.

In 2018, US authorities indicted two alleged Chinese hackers said to have acted on behalf of Beijing's main intelligence agency to steal trade secrets and other information from government agencies and a who's who of major corporations in the United States and nearly a dozen other nations. Targeted nations named in the US indictment include Brazil, Canada, Finland, France, Germany, India, Japan, Sweden, Switzerland and the United Arab Emirates.

Last year, Cybereason revealed in a separate report that Chinese state-backed hacking groups compromised at least five global telecommunications companies, stealing phone records and location data.

Founded in 2012, Cybereason has raised over \$700 million in capital over the past decade with investors such as GV, previously known as Google Ventures and the venture capital arm of Alphabet, Softbank, CRV, Spark Capital, Lockheed Martin, and Liberty Strategic Capital, the private equity firm set up in early 2021 by former US Treasury secretary Steven Mnuchin.

Cybereason uses behavioral analytics and machine learning to process information in real-time and provide extended detection and response (XDR). The software can tell companies if they are under attack, assess the impact, and move to stop the threat, according to the company's website.

Cybereason is said to have confidentially filed for an initial public offering (IPO) in February that could value the company at more than \$5 billion.

<https://www.timesofisrael.com/us-israeli-cyber-firm-uncovers-massive-chinese-backed-industrial-espionage-ring/?s=09>

‘Chinese spy’ Christine Lee targeting MPs is not a ‘one-off case’ security sources say as they warn of a growing threat of foreign state interference in British politics

MI5 issued rare security alert regarding Christine Lee in January earlier this year
Security service accused her of working on behalf of China's communist regime
Officials have now warned Mrs Lee's is not a 'one-off case' amid rising concern
MI5 boss says UK is in 'contest' with states trying to undermine national security

By JAMIE PHILLIPS FOR MAILONLINE

PUBLISHED: 20:38, 11 May 2022 | UPDATED: 20:38, 11 May 2022

<https://www.dailymail.co.uk/news/article-10806659/Chinese-spy-Christine-Lee-targeting-MPs-not-one-case-security-sources-say.html>

'Chinese spy' Christine Lee targeting MPs is not a 'one-off case', security sources have said, as they today warned of a growing threat of foreign state interference in British politics.

MI5 issued a rare security alert earlier this year, informing MPs that the prominent London-based solicitor had engaged in 'political interference activities' on behalf of China's ruling communist regime.

It came amid increasing concern over interfering foreign states presenting a huge danger to democratic institutions and values.

Ken McCallum, MI5 director general, has described the UK as being in a 'contest' with states attempting to undermine national security and interfere with democracy - as he welcomed plans to overhaul espionage laws.

He described the problem as an 'insidious' threat and a 'really significant challenge'.

And security sources have said Ms Lee's case is not a 'one-off', adding: 'We are seeing that manifesting elsewhere and we are prepared to see much more of that in the future.'

Whitehall officials believe powers put forward in the National Security Bill, which was introduced to Parliament today, can help tackle similar cases in future.

When MI5 first circulated the warning about Ms Lee in January earlier this year, it emerged that senior Labour MP Barry Gardiner had previously received more than £500,000 from her to pay for researchers in his office.

But at the time, he told the Commons he had been assured the alert did not relate to those donations.

Mr McCallum says it 'must be right' that Parliament looks at modernising powers available to MI5.

While espionage is as 'old as the hills, the way in which it comes at us is changing', Whitehall officials have said.

And discussing the rise in threats from hostile foreign states, officials added that the UK is 'regarded as one of a leading pack of unfriendly nations towards Russia, so we are expecting to see heightened activity'.

Particularly, grave concerns remain over the Russian regime being 'prepared to kill on UK soil'.

The warning sent by MI5 to MPs in January warning to avoid contact with Mrs Lee after she had engaged in 'political interference activities' on behalf of China's ruling communist regime

MPs were warned in a bombshell email in January to avoid contact with Mrs Lee, 58, who has been monitored by the security services for some time.

MI5 said Lee had 'facilitated' donations to British political parties and legislators 'on behalf of foreign nationals'.

In a dramatic intervention, MI5 accused the 58-year-old of working on behalf of China's powerful United Front Work Department agency to corrupt politicians.

Lee moved with her parents to Northern Ireland in 1974 before relocating to the West Midlands in 1985 and marrying her first husband in Birmingham when she was 21.

Some five years later she married Martin Wilkes in Solihull and the couple had two children. There is no suggestion of any wrongdoing on the part of Mr Wilkes

<https://www.dailymail.co.uk/news/article-10806659/Chinese-spy-Christine-Lee-targeting-MPs-not-one-case-security-sources-say.html>

Will Russia's invasion of Ukraine usher in a new era of spying?

The Week Staff 7 hrs ago [11/05/2022]

<https://www.msn.com/en-gb/news/world/will-russia-s-invasion-of-ukraine-usher-in-a-new-era-of-spying/ar-AAx8RAQ?ocid=msedgdhp&pc=U531&cvid=dfd8650fac94461a8e5b0ceae0202d5e>

Moscow's global intelligence network has been devastated by the ongoing conflict, experts claim

Vladimir Putin has handed control of Russia's intelligence operations in Ukraine to the spying unit that orchestrated the attempted assassination of Sergei and Yulia Skripal in Salisbury, it has emerged.

The GRU, Moscow's foreign military intelligence agency, is taking over from the FSB, the country's principal security organisation, amid reports that the latter is being "blamed for failings" that contributed to Russia's "humiliating retreat from Kyiv", The Telegraph said.

Putin's invasion has prompted an "unprecedented wave of expulsions of Russian diplomats" from Europe, The Guardian's diplomatic editor Patrick Wintour said, a move that is not only "symbolic" but may "mark the end of an era" for overseas espionage.

Tinker, tailor, soldier, bye

The US and Europe have sought to "crack down on Russian spies" since Putin gave the green light for an invasion, Axios reported. This has led to the "expulsion of more than 400 Russian diplomats and embassy staff" as of early April.

Many of them were declared "persona non grata", meaning they were suspected of being "intelligence officers working under diplomatic cover". And their removal could "degrade Russia's ability to spy and carry out subversive activities on Western soil".

In what is thought to be an effort to reverse the damage, Moscow has "ordered tens of thousands of new diplomatic passports" as part of a "suspected scam to allow officials and spies – and their spouses – to bypass Western sanctions", the Daily Mail reported.

Citing a report by Russian opposition media outlet SOTA, the Mail said the foreign ministry has "suddenly demanded the rapid printing of almost 175,000 of the elite travel documents at a cost of £3.3million".

Boarding call

In what has developed into an "international game of spy vs. spy", The Washington Post said that the expulsions have "dealt Russia a potentially crippling blow".

The Kremlin and FSB depended on these operatives "to gather intelligence inside the countries where they serve", meaning the move "could dismantle large parts of Moscow's spy networks".

"The intelligence war with Russia is at full swing," Marc Polymeropoulos, a retired CIA officer who oversaw the agency's operations in Europe and Russia, told the paper. "This will prove to be a significant dent in Russian intelligence operations in Europe."

The individuals being expelled "will not be chosen at random", said The Guardian's Wintour. Instead, they will be handed a plane ticket home if "there is evidence they are in breach of the Vienna convention, the code that governs legitimate diplomacy".

Foreign ministries are "reluctant to expel" suspected spies "unless the evidence is overwhelming", he continued. This is because "diplomats naturally believe in their profession" and "regard experts in situ" as "vital to conveying accurate information about their host country back to their capital".

With that in mind, "few think" the wave of expulsions "can be reversed for decades to come", he added.

Close collaboration

While most experts consider the damage done to Russia's intelligence network to be immense, former US officials have warned that the Biden administration should "shut up" about their close collaboration with the government in Kyiv.

After senior officials told The New York Times that the US provided intelligence about Russian units that allowed Ukraine to target and kill Russian generals in the field, John Sipher, a former member of the CIA Clandestine Service, tweeted: "Shut up about it."

His warning that the briefings could further exacerbate tensions between the US and Russia was echoed by Professor Michael McFaul, a former US ambassador to Moscow, who added: "No one should be talking to [the] press about such things."

Collaboration between Western intelligence agencies and their allies in Ukraine has been extensive, GCHQ director Jeremy Fleming yesterday told a cyber security conference in Wales, explaining that the UK's spying agency is "seeing this conflict in near real time in information, cyber and technology spaces.

"It is a remarkable feature of this war just how much information about the behaviours and tactics of the Russian forces are out in the public domain – and how much intelligence has been released by Western allies to challenge and get ahead of Putin's actions.

"This is modern warfare influenced and shaped by the democratisation of information", the Independent reported.

'Gung-ho forces'

With his international web of spies being dismantled by the minute, Putin has turned to the GRU to "strengthen its spy capabilities", The Telegraph reported.

The "new man in charge of Putin's intelligence gathering" is Lieutenant General Vladimir Alekseyev, who has already been "implicated in attacks and assassination attempts against the West".

In an article for the Washington-based Centre for European Policy Analysis, investigative journalists Irina Borogan and Andrei Soldatov said: "He [Alekseyev] is accused by the UK and the European Union of overseeing the chemical weapons attack in Salisbury in 2018.

“An experienced special forces officer, he is also sanctioned by the US for direct cyber interference in the US 2016 election.”

Alekseyev also “saw military action in Syria, and he was involved in the conflict in Donbas”, they wrote. His fellow troops viewed him as “brutal and self-confident to the point of recklessness”.

Alekseyev’s appointment suggests that “it is the gung-ho forces within Russia’s spy community that are now charged with plucking victory from the morass of their country’s worst military and intelligence failure since World War II”, they added.

<https://www.msn.com/en-gb/news/world/will-russia-s-invasion-of-ukraine-usher-in-a-new-era-of-spying/ar-AAx8RAQ?ocid=msedgdp&pc=U531&cvid=dfd8650fac94461a8e5b0ceae0202d5e>

Russian GPS jamming in Ukraine pushes Britain to seek alternatives

Threat of satellite interference will only get worse, analysts warn

Larisa Brown, Defence Editor

Monday May 23 2022, 1.50pm, The Times

<https://www.thetimes.co.uk/article/russian-gps-jamming-in-ukraine-pushes-britain-to-look-for-alternatives-9ck7b765h>

Britain and the United States are seeking alternatives to GPS that do not rely on satellites amid concern that future wars could be fought by signal jammers without a shot being fired.

Jeremy Quin, the defence procurement minister, said the government would “need to be alert” to the threat of satellite meddling as Russia uses the war in Ukraine to test its GPS jamming.

“There is a whole range of capabilities that are being deployed on both sides,” Quin told The Times. “We need to learn the lessons from that and continue our own innovative work in the field.”

Britain is reviewing alternative navigation systems including OneWeb, which uses space, and the American brand NextNav, which is in talks with government about deploying its ground-based technology in London and Manchester.

Where GPS uses radio signals from satellites to determine the location of receiver objects such as mobile phones, NextNav locates them using transmitter stations on the ground. It uses barometric pressure sensors on phones to determine altitude.

NextNav claims that its signals are 100,000 times stronger than those of GPS, making them harder to jam and more effective in cities, where building density gets in the way. It can geolocate positions within high-rise buildings to within three metres and also locate receivers in car parks.

Ganesh Pattabiraman, the chief executive of NextNav, said: “We are working with the US federal government to try and create a back-up system to GPS because of the threat that GPS is under from the Russians and others.”

He added: “If you want to jam our system it is very difficult to do so as we have multiple transmitters around the area. Our system is also secure as we have encryption turned on.” Pattabiraman met officials from the Cabinet Office and the Department for Business, Energy and Industrial Strategy this week.

Just before the war began Ukrainian diplomats in Brussels urged European leaders to use “all means” to jam Russian satellite signals.

Ukraine is understood to have asked the West to block Glonass, Russia’s GPS system, and jam its signal in the region. This requested was unfulfilled.

“The minute you disable Glonass, the Russians could shoot down the GPS satellites and you are into World War Three,” Pattabiraman said.

Such an attack could bring down an electrical grid, render cash machines inoperable, collapse the banking system, stop mobile phones from working, and prevent precision missiles from reaching their targets.

“There is no doubt whatsoever that the impact of the loss of GPS is almost existential. Banking, trade transactions and all areas of transport and food supply would all be affected and in complete chaos,” Pattabiraman added.

“The Russians could switch it off tomorrow and we’ve got no fall back at all”, said Lord West of Spithead, a former security minister and head of the navy who has raised his concerns in parliament.

In April, Lord True, a Cabinet Office minister, said Britain was “actively examining the critical dependencies we have on GPS to inform the measures needed to defend our critical national infrastructure”.

Russia has been accused of attacking GPS in Ukraine by methods including spoofing: using fake signals to trick the enemy about the location of a person, object or battalion.

Kaitlyn Johnson, deputy director and fellow of the Aerospace Security Project at the Center for Strategic and International Studies, said she believed GPS jamming and spoofing would be common in any future conflict. Some jamming technology can be bought for as little as £100.

Pattabiraman said that jamming or spoofing can become a “dangerous weapon” in the hands of a state actor or terrorist. “I can take out the electric grid, the telecommunications systems, everything by jamming GPS and I don’t have to fire a single shot. That’s the level of risk we are facing”, he said.

A spokesman for the Department of Business, Energy and Industrial Strategy, said: “We are working to boost the resilience of our positioning, navigation, and timing (PNT) capability for the UK to support our critical national infrastructure.

“We are currently reviewing a range of options, including non-space alternatives, to strengthen the UK’s security and will announce our next steps in due course.”

<https://www.thetimes.co.uk/article/russian-gps-jamming-in-ukraine-pushes-britain-to-look-for-alternatives-9ck7b765h>

Deadly secret: Electronic warfare shapes Russia-Ukraine war

By OLEKSANDR STASHEVSKYI and FRANK BAJAK

<https://apnews.com/article/russia-ukraine-kyiv-technology-90d760f01105b9aaf1886427dbfba917?s=09>

KYIV, Ukraine (AP) — On Ukraine's battlefields, the simple act of powering up a cellphone can beckon a rain of deathly skyfall. Artillery radar and remote controls for unmanned aerial vehicles may also invite fiery shrapnel showers.

This is electronic warfare, a critical but largely invisible aspect of Russia's war against Ukraine. Military commanders largely shun discussing it, fearing they'll jeopardize operations by revealing secrets.

Electronic warfare technology targets communications, navigation and guidance systems to locate, blind and deceive the enemy and direct lethal blows. It is used against artillery, fighter jets, cruise missiles, drones and more. Militaries also use it to protect their forces.

It's an area where Russia was thought to have a clear advantage going into the war. Yet, for reasons not entirely clear, its much-touted electronic warfare prowess was barely seen in the war's early stages in the chaotic failure to seize the Ukrainian capital of Kyiv.

It has become far more of a factor in fierce fighting in eastern Ukraine, where shorter, easier-to-defend supply lines let Russia move electronic warfare gear closer to the battlefield.

"They are jamming everything their systems can reach," said an official of Aerorozvidka, a reconnaissance team of Ukrainian unmanned aerial vehicle tinkers, who spoke on the condition of anonymity because of safety concerns. "We can't say they dominate, but they hinder us greatly."

A Ukrainian intelligence official called the Russian threat "pretty severe" when it comes to disrupting reconnaissance efforts and commanders' communications with troops. Russian jamming of GPS receivers on drones that Ukraine uses to locate the enemy and direct artillery fire is particularly intense "on the line of contact," he said.

Ukraine has scored some successes in countering Russia's electronic warfare efforts. It has captured important pieces of hardware — a significant intelligence coup — and destroyed at least two multi-vehicle mobile electronic warfare units.

Its own electronic warfare capability is hard to assess. Analysts say it has markedly improved since 2014, when Russia seized Crimea and instigated a separatist revolt in eastern Ukraine. But there are setbacks. Last week, Russia claimed it destroyed a Ukrainian electronic intelligence center in the southeastern town of Dniprovske. The claim could not be independently confirmed, and Ukrainian officials did not respond to a request for comment.

Ukraine has also made effective use of technology and intelligence from the United States and other NATO members. Such information helped Ukraine sink the battle cruiser Moskva. Allied satellites and surveillance aircraft help from nearby skies, as does billionaire Elon Musk's Starlink satellite communications network.

Electronic war has three basic elements: probe, attack and protect. First, intelligence is gathered by locating enemy electronic signals. On attack, "white noise" jamming disables and degrades enemy systems, including radio and cellphone communications, air defense and artillery radars. Then there is spoofing, which confuses and deceives. When it works, munitions miss their targets.

"Operating on a modern battlefield without data is really hard," said retired Col. Laurie Buckhout, a former U.S. Army electronic warfare chief. Jamming "can blind and deafen an aircraft very quickly and very dangerously, especially if you lose GPS and radar and you're a jet flying at 600 miles an hour."

All of which explains the secrecy around electronic warfare.

"It is an incredibly classified field because it is highly dependent on evolving, bleeding-edge technologies where gains can be copied and erased very quickly," said James Stidham, a communications security expert who has consulted for the U.S. State and Homeland Security departments.

Ukraine learned hard lessons about electronic warfare in 2014 and 2015, when Russia overwhelmed its forces with it. The Russians knocked drones out of the sky and disabled warheads, penetrated cellphone networks for psychological ops and zeroed in on Ukrainian armor.

One Ukrainian officer told Christian Brose, an aide to the late U.S. Sen. John McCain, R-Ariz., how Russian info warriors tricked a commander into returning a wireless call from his mother. When he did, they geolocated him in mid-call and killed him with precision rockets, Brose wrote in the book "The Kill Chain."

The U.S. also experienced Russia's electronic warfare in action in Syria, where the adversaries have backed opposing sides in the civil war. In 2018, U.S. Special Operations chief Gen. Raymond Thomas described how U.S. pilots' communications were regularly "knocked down" in Syria in the "most aggressive" electronic warfare environment on the planet. Russia's advanced systems are designed to blind U.S. Airborne Warning and Control Systems, or AWACS, aircraft — the eyes and ears of battlefield commanders — as well as cruise missiles and spy satellites.

In the current war, electronic warfare has become a furious theater of contention.

Aerorozvidka has modified camera-equipped drones to pinpoint enemy positions and drop mortars and grenades. Hacking is also used to poison or disable enemy electronics and collect intelligence.

Ukrainian officials say their electronic warfare capabilities have improved radically since 2015. They include the use of encrypted U.S. and Turkish communications gear for a tactical edge. Ukraine has advanced so much it exports some of its technology.

Russia has engaged in GPS jamming in areas from Finland to the Black Sea, said Lt. Col. Tyson Wetzel, an Air Force fellow at the Atlantic Council. One regional Finnish carrier, Transaviabaltica, had to cancel flights on one route for a week as a result. Russian jamming has also disrupted Ukrainian television broadcasting, said Frank Backes, an executive with California-based Kratos Defense, which has satellite ground stations in the region.

Yet in the war's early days, Russia's use of electronic warfare was less effective and extensive than anticipated. That may have contributed to its failure to destroy enough radar and anti-aircraft units to gain air superiority.

Russia's defense ministry did not respond to a request for comment for this article.

Some analysts believe Russian commanders held back units fearing the units would be captured. At least two were seized. One was a Krasukha-4, which a U.S. Army database says is designed to jam satellite signals as well as surveillance radar and radar-guided weapons from more than 100 miles (160 kilometers) away. The other: the more advanced Borisoglebsk-2, which can jam drone guidance systems and radio-controlled land mines.

Russia may have also limited the use of electronic warfare early in the conflict because of concerns that ill-trained or poorly motivated technicians might not operate it properly.

“What we’re learning now is that the Russians eventually turned it off because it was interfering with their own communications so much,” said retired Lt. Gen. Ben Hodges, a former U.S. Army commander for Europe.

The communications problems were evident with many Russian troops talking on insecure open radio channels, easily monitored by outsiders.

It’s unclear how much of an edge Russia’s electronic assets may now offer. Ukraine’s forces are now more concentrated than early in the war, which could make them easier to target.

Much depends on whether Russia’s battalion tactical groups “are configured in reality as they are on paper,” said James Rands, of the Jane’s military intelligence think tank. Each group, comprised of roughly 1,000 troops, is supposed to have an electronic warfare unit. The Pentagon says 110 such groups are in Ukraine.

The Kremlin also claims to have more than 1,000 small, versatile Orlan-10 unmanned aerial vehicles it uses for reconnaissance, targeting, jamming and cellphone interception.

Russia has lost about 50 of its Orlan-10s in the war, but “whatever they lost could be a small portion of what’s flying,” said researcher Samuel Bendett, of the Center for Naval Analyses think tank.

Ukraine’s relative UAV strength is unclear, but Ukrainians have adapted such technologies as software-defined radio and 3D printing to stay nimble.

The U.S. and Britain also supply jamming gear, but how much it helps is unclear. Neither country has offered details. The ability of both sides to disable the other’s drones is crucial with the artillery they scout now so decisive in battles.

Musk’s Starlink is a proven asset. Its more than 2,200 low-orbiting satellites provide broadband internet to more than 150,000 Ukrainian ground stations. Severing those connections is a challenge for Russia. It is far more difficult to jam low-earth orbiting satellites than geostationary ones.

Musk has won plaudits from the Pentagon for at least temporarily defeating Russian jamming of Ukrainian satellite uplinks with a quick software fix. But he has warned Ukrainians to keep those terminals powered down when possible — they are vulnerable to geolocation — and recently worried on Twitter about redoubled Russian interference efforts.

“I’m sure that the Russians are getting smarter about that now,” said Wetzel, the Air Force lieutenant colonel.

Bajak reported from Boston. AP correspondent Lolita C. Baldor contributed from Washington.

<https://apnews.com/article/russia-ukraine-kyiv-technology-90d760f01105b9aaf1886427dbfba917?s=09>

See it, say it, pocket £12,000: China offers cash for reports on ‘enemies’

Didi Tang, Beijing

Wednesday June 08 2022, 3.45pm, The Times

China

<https://www.thetimes.co.uk/article/see-it-say-it-pocket-12-000-china-offers-cash-for-reports-on-enemies-73h06qrm>

China has announced that it will offer up to £12,000 and “spiritual” rewards for anyone who informs on people they suspect of being enemies of the state.

Under a law “standardising” its incentives, the government said it hoped to “encourage citizens to report acts harming state security” and “mobilise all social resources to maintain national security”.

The Ministry of State Security said that the plan was “conducive to fully mobilising the enthusiasm of the general public to support and assist in national security work, widely rallying the hearts, morale, wisdom and strength of the people”.

Rewards for tip-offs start at 10,000 yuan (£1,200) and may rise to ten times that amount based on the usefulness of the information. Informants, who are encouraged to report under their real names, can also be awarded “spiritually” with certificates acknowledging their service to the state.

The rules apply to tips involving people at home and overseas, as Beijing has become particularly wary in recent years of hostile foreign forces seeking to subvert party rule.

President Xi has made national security a “bottom-line” issue. In 2015, two years after he took office, he signed a new national security law with sweeping clauses covering political security, homeland security, military security, cultural security and technological security. Educational videos were released to tell children and teenagers to look out for suspicious activities, including by their parents, and instruct them on how to dial a hotline.

Cash rewards also have been offered to incentivise informants, although different local governments have had different rules. Last year, the city of Beijing handed out more than 250,000 yuan (£30,000) to about 70 citizens who came forward with useful information on suspected terrorism and violence.

A local official in the southwest city of Bije was rewarded “spiritually” and “materially” last year by both the national state security ministry and the provincial state security bureau after they reported on an American journalist in the city to report on its poverty reduction campaign.

The journalist was described as “continuously sneaking into the city”, “reporting illegally on the negative side” of the campaign, and “hyping it overseas”.

“Such clues have provided strong support for the state security apparatus to investigate cases and eliminate safety hazards in a timely manner,” the Bije government said.

In the southern city of Guangzhou, a resident identified as Mr Fu was given money after he reported a driver for spreading information about a cult. Fu had recorded the conversation and passed it, along with the driver’s details, to the provincial state security bureau.

Two villagers near the southern city of Shanwei, which is close to a military base, were given cash rewards for reporting a pair of visitors who were photographing the local bulletin board. A report in the People's Daily, the Chinese Communist Party's mouthpiece, said they might have been seeking clues to possible drills.

<https://www.thetimes.co.uk/article/see-it-say-it-pocket-12-000-china-offers-cash-for-reports-on-enemies-73h06qrm>

Satellites open the door to era of British espionage from space

Larisa Brown, Defence Editor

Monday June 13 2022, 12.01am, The Times

<https://www.thetimes.co.uk/article/satellites-open-the-door-to-era-of-british-espionage-from-space-dmr6vl86z>

Two miniature satellites due to be launched from Cornwall this summer will carry out surveillance across different regions for years, paving the way for Britain to have its own spying capability from space.

High-quality imagery of the battlefields in Ukraine has highlighted the importance of satellites in providing an accurate picture amid widespread disinformation, Doug Liddle, head of In-Space Missions, said.

Britain has relied on its relationship with the US Department of Defense, which has shared its data, and the imagery from RAF aircraft in the region to analyse Russian troop movements.

However, the UK wants to develop its own sovereign capability by creating a constellation of small intelligence, surveillance and reconnaissance (ISR) satellites that will enable it to gather imagery and electronic intelligence.

One of their functions will be the monitoring of radio signals — a capability that has proved crucial to intercepting conversations between Russian commanders and junior ranks.

Advertisement

The Times was given rare access to the In-Space Missions laboratory in Hampshire, where miniature “CubeSat” satellites are being built in readiness for the launch. The satellites are prototypes and will carry out an initial scoping exercise to see what is possible for the UK in the future.

They are made up of electronics boards, along with bespoke payloads including cameras, at the request of Ministry of Defence scientists. The semiconductors inside them have come from China because of a global shortage.

Weighing 9kg each, the two “cereal box-sized” satellites will operate in low orbit, about 340 miles above the Earth. They will send information to one another while up to 60 miles apart and travelling at 17,000mph.

They will be launched at an estimated cost of \$300,000 from Virgin Orbit's Launcher One rocket, which takes off horizontally from a modified Boeing 747 jet named Cosmic Girl.

Unlike normal satellites, each “CubeSat” can have several customers, giving the product its novelty value.

The satellites have a dual use, so in theory they could be listening to a radio frequency signal for one government department while supporting the armed forces by telling them “what somebody is up to on their handheld VHF radio”, Liddle said.

In the future, In-Space Missions, part of BAE Systems, wants one satellite to be able to process the data that is being collected by the other satellite so the company does not have to waste time sending raw data to Earth.

The launch will mark the first time satellites have been sent up from the UK. Many countries used to rely on Russia's launch platforms to send small satellites into space; however, companies have been unable to get the necessary export licence since Russia invaded Ukraine.

<https://www.thetimes.co.uk/article/satellites-open-the-door-to-era-of-british-espionage-from-space-dmr6vl86z>



Antennas above the Russian Embassy in Bulgaria, a repeat by request

Morse Stations

All frequencies listed in kHz. Freqs are generally ± 1 kHz

This is a representative sample of the logs received, giving an indication of station behaviour and the range of times/freqs heard. These need to be read in conjunction with any other articles/charts/comments appended to this issue.

Morse - Number Stations

M01/3 XIV MCW, hand (025 sched for May - Aug). Will change to M01/2 sched ID 463 for Sept - Oct.

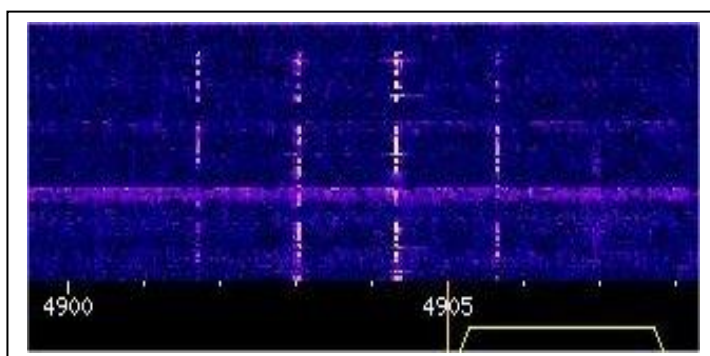
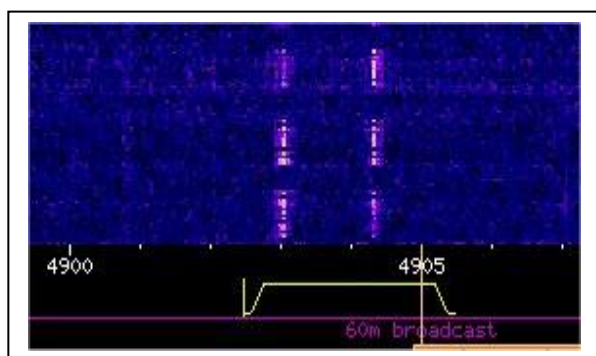
First noted in July 2021 is the occasional change to the ending where 0.0.0. is sent using periods or random 'series of 'dits' in place of the usual 000. Also of note is the tendency to omit the == pair at the end of the message on numerous occasions.

Change of Freq for 2000z schedule:

From the beginning of this '025' cycle, M01 has appeared on 4903kHz for the 2000z transmissions, 2kHz down from the usual frequency. The reason for this change is unclear since 4905kHz appears to be clear of any QRM or carriers.

Transmitter Output Variations

M01 has a nickname of 'Two-Tone', which was given to the station as originally it consisted of two carriers, spaced 1kHz apart. More recently, the spacing between the two carriers changed to 1.2kHz & in addition has been exhibiting four carriers on some transmissions – particularly the 2000z schedule. Whether this is an intentional change or the result of a malfunctioning transmitter is unknown. In the past, the transmitters were notoriously unreliable and the quality of the emissions often far from perfect. On one occasion, 12 May, only one carrier was used for the 2000z transmission. M01 never fails to surprise the regular listener!



M01 - Thu 05 May 2000z

M01 - Tuesday 17 May 2000z

Courtesy BR

May 2022:

4903	2000z	03 May	'025' 803 30 == 10945 ... 23010 ==	Good, fast. Many triplets in grps. 13 grps starting with 20	BR/HFD	TUE
	2000z	05 May	'025' 581 30 == 20198 ... 56185 ==	Good, fast. Excellent Morse.	BR	THU
	2000z	10 May	'025' 161 30 == 76534 ... 72653 ==	Good, fast. Excellent Morse. 18 grps starting with 2	BR	TUE
	2000z	12 May	'025' 395 30 == 12789 ... 95867 ==	Good, fast. Numerous sequential grps. [Note 3]	BR	THU
	2000z	17 May	'025' 174 30 == 76349 ... 63542 ==	Good, irregular. 4 carriers present (See image)	BR	TUE
	2000z	19 May	'025' 516 30 == 62735 ... 72536 ==	Fair/Good, fast. Two sequential grps noted, 76543 34567	BR	THU
	2000z	24 May	'025' 304 30 == 41049 ... 48756	Good, fast. Excellent Morse. Ends 304 304 30 == 000	BR	TUE
	2000z	26 May	'025' 491 30 == 29187 ... 97816 ==	Good, fast. Excellent Morse. No errors. Some LSB QRM	BR	THU
5280	2000z	30 May	'025' 491 30 == 29817 ... 76615 ==	Good, fast. Excellent Morse	BR	TUE
	1800z	03 May	'463' 408 30 == 59109 ... 56109	Fair, med-fast. Many 209 triplets in grps. [Note 2]	BR	TUE
	1800z	10 May	'025' 152 30 == 67235 ... 48972 ==	Fair, fast. Excellent Morse	BR/HFD	TUE
	1800z	12 May	'025' 975 30 == 66557 ... 56437 ==	Weak, fast. Many sequential grps. 12345 45678 etc.	BR	THU
6435	1800z	19 May	'025' 145 30 == 72365 ... 26537 ==	Fair/Good, fast. Several grps sent without pause mid-msg	BR	THU
	1500z	14 May	'025' 183 30 == ... 37486 ==	Weak, fast. Excellent Morse. Poor copy due to weak sig.	BR	SAT
	1500z	21 May	'025' 878 30 == 71256 ... 38463 ==	Fair, fast. Excellent Morse. No errors	BR	SAT
	1500z	28 May	'025' 582 30 == ... 45987 ==	Fair, fast. Start of msg missed	BR	SAT
6780	0700z	01 May	'463' 543 30 == 09451....	Using wrong call-up. Should be '025' [Note 1]	HFD	SUN

Note 1: Used incorrect call-up '463'. Should have changed to '025' for May – Aug cycle

Note 2: Used '463' call-up for 2 mins. Sent error character, then changed to correct '025' call

Note 3: Only a single carrier was used on 4903kHz. The 2nd carrier, 1.2kHz higher was missing

June 2022:

4903	2000z	02 Jun	'025' 996 30 == 89743 ... 78346 ==	Good, fast. Grps23 & 30 sent once. DK not sent at EOM	BR	THU
	2000z	07 Jun	'025' 313 30 == 74362 ... 95487 ==	Good, fast. Errors noted. Sequential grps 54321 65432	BR	TUE
	2000z	09 Jun	'025' 945 30 == ... 12331 ==	Good, fast. Excellent Morse. No noted errors. Missed start	BR	THU
	2000z	16 Jun	'025' 102 30 == 37891 ... 37466 ==	Good, fast. Poor Morse with many errors. Ending DK 202	BR	THU
	2000z	21 Jun	'025' 6 94737 ... 16738 647 647 30 30 000	Good, fast. Numerous format & repeat errors	BR	TUE
	2000z	23 Jun	'025' 231 30 == ... 27363 ==	Good, fast. Longer pauses between grps. Ended 0000	BR	THU
	2000z	28 Jun	'025' 379 30 == 83216 ... 40986 ==	Good, fast. Good Morse, some pauses, no noted errors	BR	TUE

5280	1800z	07 Jun	'025' 836 30 == 82367 ... 32465 ==	Fair, fast. Grp10 6832 76832. Grp26 sent once only	BR	TUE
	1800z	09 Jun	'025' 743 30 == 45732 ... 95439 ==	Weak/Fair, fast. Excellent Morse. No errors	BR	THU
	1800z	14 Jun	'025' 715 30 == 56348 ... 18693 ==	Weak/Fair, fast Poor, irregular Morse with many errors	BR	TUE
	1800z	16 Jun	'025' 808 30 == 74632 ... 93721 ==	Weak. Awful Morse. Confusing sending with many errors	BR	THU
	1800z	21 Jun	'025' 632 30 = 97463 ... 64218 ==	Weak/fair, fast. Hesitant in places. No noted errors	BR	TUE
	1800z	28 Jun	NRH		BR	TUE
6435	1500z	04 Jun	'025' 247 30 == 74368....		HFD	SAT
	1500z	18 Jun	'025' 998 30 == 56578 ... 90987 ==	Weak/fair, med-fast. Hesitant in places. Errors noted	BR	SAT
	1500z	25 Jun	'025' 946 30 == 49017 ==	Weak/fair. Fast. Poor copy. Many grps starting with 0	BR	SAT

M01a (From Feb 2016 M01a has been redefined to cover all M01 variants - excepting M01b)

A number of regular schedules have been reported & Logged by Edd Smith – See ENIGMA 2000 Newsletter 116 for details.

Logs are shown as continuous. In practice there are often pauses between lines – Often quite lengthy pauses.

9129	0532z	15 Jun	498 (x3) 52566 (x2) 111 000		F5JBR	WED
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M12 IB ICW, some MCW / CW, short 0. Reuses many freqs year on year.

New ID's may be only for the month/sched shown, but not necessarily unknown. The reason for their reuse, some after long periods of time is unknown.

Asiatic M12 Logs

13426/12126/10226	0210/30/50z	02 May	412 1		HFD	MON
14581/13481/12181	0700/30/50z	07 Jun	541 1	(Via SDR Japan)	HFD	TUE
	0700/20/40z	23 Jun	541 1 (5737 60) 85040 47831....	(Via SDR Japan)	BR	THU
15918/14818/13918	0210/30/50z	06 Jun	989 1	(Via SDR Japan)	HFD	MON

European M12 Logs

May 2022: New scheds in bold type

8161/9161/10561	0030/0050/0110z	03 May	115 1 (5421 81)	67841 20043 ... 36299 41098 000 000	BR/Gert/HFD	TUE
	0030/0050/0110z	06 May	115 1 (5421 81)	67841 20043 ... 36299 41098 000 000	Gert	FRI
	0030/0050/0110z	13 May	115 000		Gert	FRI
	0030/0050/0110z	24 May	115 000		Gert	TUE
10183/9083/8083	2210/30/50z	04 May	199 1 (4041 98)	65014 83969 ... 16164 83339 000 000	BR/Gert/HFD	WED
	2210/30/50z	07 May	199 1 (4041 98)	65014 83969 ... 16164 83339 000 000	Gert	SAT
	2210/30/50z	11 May	199 1 (3638 106)	96964 61709 ... 68516 63060 000 000	Gert	WED
	2210/30/50z	14 May	199 1 (3638 106)	96964 61709 ... 68516 63060 000 000	BR/Gert	SAT
	2210/30/50z	18 May	199 000		BR	WED
	2210/30/50z	25 May	199 000		BR/Gert	WED
10843/10243/9243	2100/20/40z	06 May	822 1 (3753 140)	40326 67774 ... 57679 62353 000 000	BR/Gert	FRI
	2100/20/40z	07 May	822 1 (3753 140)	40326 67774 ... 57679 62353 000 000	BR/Gert/HFD	SAT
	2100/20/40z	13 May	822 1 (2111 186)	39566 38549....	BR	FRI
	2100/20/40z	14 May	822 1 (2111 186)	39556 38549 ... 62973 11514 000 000	BR/Gert	SAT
	2100/20/40z	20 May	822 1 (2111 186)	39556 38549....	BR	FRI
	2100/20/40z	21 May	822 1 (2111 186)	39556 38549....	BR	SAT
	2100/20/40z	27 May	822 1 (281 154)	03780 21395....	BR	FRI
11435/10598/9327	1800/20/40z	07 May	938 1 (8173 70)	97415 64590 ... 29098 58963 000 000	Gert/HFD	SAT
	1800/20/40z	14 May	938 1 (1645 76)	28336 44189 ... 11454 44922 000 000	Gert	SAT
12205/13559/14728	1230/1250/1310z	09 May	973 1 (3314 61)	14981 91765 ... 58304 29948 000 000	BR/Gert	MON
	1230/1250/1310z	16 May	973 1 (8568 57)	64666 87881....	BR	MON
	1230/1250/1310z	23 May	973 1 (1549 63)	66111 64331....	BR	MON
	1230/1250/1310z	30 May	973 1 (7111 63)	70133 93586....	BR	MON
13381/12181/10781	2110/30/50z	02 May	317 1 (6250 67)	21527 02530 ... 69261 23612 000 000	BR/Gert/HFD	MON
	2110/30/50z	05 May	317 1 (6250 67)	21527 02530 ... 69261 23612 000 000	Gert	THU
	2110/30/50z	12 May	317 000		BR/Gert	THU
	2110/30/50z	16 May	317 1 (5320 56)	21518 00353....	BR	MON
	2110/30/50z	23 May	317 000		BR	MON
	2110/30/50z	30 May	317 1 (423 47)	91059 04445....	BR	MON
13386/12189/11491	1100/20/40z	04 May	725 1 (8198 66)	36797 79187 ... 51662 43004 000 000	Gert	WED
	1110/30/50z	05 May	725 1 (2655 98)	88496 75084 ... 18225 95139 000 000	BR/Gert/HFD	THU
	1110/30/50z	12 May	725 1 (7285 90)	89522 60668....	BR/Gert	THU
	1110/30/50z	19 May	725 1 (4428 97)	76986 92882....	BR	THU
	1110/30/50z	26 May	725 1 (5269 93)	82832 31018....	BR	THU
13423/12123/11123	0700/20/40z	03 May	411 1		HFD	TUE
	0700/20/40z	24 May	411 1 (3935 194)	24829 41097 ... 09411 80752 000 000	AB	TUE

13459/13959/13959	0800/20/40z 0800/20/40z 0800/20/40z	03 May 06 May 13 May	496 000 496 000 496 000		Gert Gert Gert	TUE FRI FRI
13926/13426/11526	2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z 2000/20/40z	02 May 05 May 12 May 16 May 19 May 23 May 26 May	573 000 573 000 573 1 (1490 84) 573 000 573 000 573 1 (740 73) 573 1 (740 73)	10455 92712 ... 22984 37493 000 000 88392 11671.... 88392 11671....	Gert/HFD Gert Gert BR BR BR BR	MON THU THU MON THU MON THU
15936/14736/13536	1900/20/40z 1900/20/40z 1900/20/40z 1900/20/40z 1900/20/40z 1900/20/40z 1900/20/40z	04 May 06 May 11 May 13 May 18 May 20 May 25 May 27 May	975 000 975 000 975 1 (811 83) 975 1 (811 83) 975 000 975 000 975 1 (690 53) 975 1 (690 53)	14841 90926.... 14841 90926.... 77195 92771 ... 46859 88238 000 000 77195 92771....	Gert/HFD BR BR BR BR BR BR/Gert BR	WED FRI WED FRI WED FRI WED FRI
16113/15813/14813	1600/20/40z 1600/20/40z 1600/20/40z 1600/20/40z 1600/20/40z 1600/20/40z	01 May 04 May 11 May 15 May 22 May 25 May 29 May	188 000 188 1 (2112 79) 188 000 188 000 188 1 (814 80) 188 000 188 000	63041 50480 ... 94668 35921 000 000 60864 06845....	Gert/HFD BR/Gert BR Gert BR Gert BR	SUN WED WED SUN SUN WED SUN
20282/19482/18382	1400/20/40z 1400/20/40z 1400/20/40z 1400/20/40z	05 May 12 May 16 May 30 May	243 1 (791 91) 243 000 243 1 (270 69) 243 1 (777 54)	82732 05748 ... 86503 95431 000 000 15422 97903.... 23968 68707....	BR/Gert/HFD BR BR BR	THU THU MON MON
<u>June 2022:</u>						
7857/9157/10457	0030/0050/0110z 0030/0050/0110z	03 Jun 17 Jun	814 1 (3236 61) 814 1 (650 93)	32586 52687 ... 04872 89654 000 000 50072 88089 ... 59667 12083 000 000	Gert/HFD Gert	FRI FRI
10223/9323/8023	2210/30/50z 2210/30/50z 2210/30/50z 2210/30/50z 2210/30/50z 2210/30/50z 2210/30/50z 2210/30/50z 2210/30/50z	01 Jun 04 Jun 08 Jun 11 Jun 15 Jun 18 Jun 22 Jun 25 Jun 29 Jun	239 1 (401 24) 239 1 (401 24) 239 1 (401 24) 239 1 (401 24) 239 1 (8822 76) 239 1 (8822 76) 239 1 (584 84) 239 1 (584 84) 239 1 (3546 90)	66299 58623 ... 81085 51509 000 000 66299 58623 ... 81085 51509 000 000 66299 58623.... 66299 58623 ... 81085 51509 000 000 97732 86432.... 97732 86432 ... 78277 38398 000 000 80117 80797.... 80117 80797.... 01663 13569 ... 78439 75094 000 000	BR/Gert/HFD BR/Gert BR Gert BR BR/Gert BR BR/Gert	WED SAT WED SAT WED SAT WED SAT WED
11144/10544/9344	2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z 2100/20/40z	03 Jun 04 Jun 10 Jun 11 Jun 17 Jun 18 Jun 24 Jun 24 Jun	153 1 (281 154) 153 1 (281 154) 153 1 (695 102) 153 1 (695 102) 153 1 (695 102) 153 1 (695 102) 153 1 (696 90) 153 1 (696 90)	03780 23395 ... 44126 76574 000 000 03780 23395 ... 44126 76574 000 000 89517 72075.... 89517 72075 ... 14762 60752 000 000 89517 72075.... 89517 72075 ... 14762 60752 000 000 42842 23764.... 42842 23764....	BR/Gert/HFD BR/Gert BR Gert BR BR/Gert BR BR	FRI SAT FRI SAT FRI SAT FRI SAT
11435/10598/9327	1800/20/40z 1800/20/40z 1800/20/40z 1800/20/40z	04 Jun 11 Jun 18 Jun 25 Jun	938 1 (4094 71) 938 1 (9300 77) 938 1 (9376 77) 938 1 (1394 73)	83023 76694 ... 37196 82479 000 000 76495 58921 ... 18130 46194 000 000 80607 71142 ... 62982 34381 000 000 41050 78637....	Gert BR/Gert Gert BR	SAT SAT SAT SAT
12205/13559/14728	1230/1250/1310z 1230/1250/1310z	13 Jun 27 Jun	973 1 (5164 57) 973 1 (7239 60)	04719 92661 ... 38401 14937 000 000 77933 25038....	Gert BR	MON MON
13386/12189/11491	1110/30/50z 1110/30/50z 1110/30/50z 1110/30/50z 1110/30/50z	02 Jun 09 Jun 16 Jun 23 Jun 30 Jun	725 1 (5513 91) 725 1 (1801 92) 725 1 (2345 99) 725 1 (6938 91) 725 1 (8073 96)	89753 31112.... 67000 82624.... 52700 48252.... 31198 49203 ... 83683 34365 000 000 95215 01341 ... 81323 33503 000 000	BR BR BR BR/Gert BR/Gert	THU THU THU THU THU
13531/13931/ - - -	0800/20/40z 0800/20/40z 0800/20/40z	07 Jun 21 Jun 28 Jun	595 000 595 000 595 000		AB Gert Gert	TUE TUE TUE

13892/1339211592	2000/20/40z	02 Jun	119 000		BR/Gert/HFD	THU
	2000/20/40z	09 Jun	119 1 (809 94)	47694 79907....	BR	THU
	2000/20/40z	16 Jun	119 000		BR	THU
	2000/20/40z	20 Jun	119 1 (7142 68)	44634 33449....	BR	MON
	2000/20/40z	23 Jun	119 1 (7142 68)	44634 33449....	BR	THU
	2000/20/40z	27 Jun	119 000		BR	MON
	2000/20/40z	30 Jun	119 000		BR	THU
14493/13393/12193	2110/30/50z	02 Jun	431 1 (423 47)	91059 04445 ... 44825 54479 000 000	BR/Gert/HFD	THU
	2110/30/50z	06 Jun	431 000		BR	MON
	2110/30/50z	13 Jun	431 1 (3024 89)	99967 95703....	BR	MON
	2110/30/50z	16 Jun	431 1 (3024 89)	99967 95703....	BR	THU
	2110/30/50z	20 Jun	431 000		BR	MON
	2110/30/50z	23 Jun	431 000		BR	THU
	2110/30/50z	27 Jun	431 1 (1746 95)	39374 89336....	BR	MON
	2110/30/50z	30 Jun	431 1 (1746 95)	39374 89336....	BR	THU
14926/14426/13426	1600/20/40z	01 Jun	944 1 (812 68)	42091 09931....	BR/HFD	WED
	1600/20/40z	05 Jun	944 1 (812 68)	42091 09931 ... 82195 82977 000 000	Gert	SUN
	1600/20/40z	08 Jun	944 000		BR	WED
	1600/20/40z	12 Jun	944 000		BR	SUN
	1600/20/40z	15 Jun	944 1 (472 60)	33247 50855....	BR	WED
	1600/20/40z	26 Jun	944 000		BR	SUN
	1600/20/40z	29 Jun	944 1 (3460 83)	13869 06089 ... 72687 68746 000 000	Gert	WED
15823/14823/13923	1900/20/40z	01 Jun	889 000		AB/BR/Gert	WED
	1900/20/40z	03 Jun	889 000		BR/HFD	FRI
	1900/20/40z	08 Jun	889 1 (515 51)	44040 32634....	BR	WED
	1900/20/40z	10 Jun	889 1 (515 51)	44040 32634....	BR	FRI
	1900/20/40z	15 Jun	889 000		BR	WED
	1900/20/40z	22 Jun	889 1 (455 70)	26849 91779....	BR	WED
	1900/20/40z	24 Jun	889 1 (455 70)	26849 91779....	BR	FRI
	1900/20/40z	29 Jun	889 000		Gert	WED
17427/16327/14627	1600/20/40z	06 Jun	436 000		BR/HFD	MON
	1600/20/40z	13 Jun	436 1 (759 77)	11800 82821....	BR	MON
	1600/20/40z	20 Jun	436 000		BR	MON
	1600/20/40z	27 Jun	436 1 (802 81)	52968 79982....	BR	MON

M12 10843/10243/9243kHz 2100/2120/2140z 14 May 2022	M12 13423/12123/11123kHz 0700/0720/0740z 24 May 2022
822 822 822 1 (R2m) 2111 186 2111 186	411 411 411 1 (R2m) 3935 194 3935 194
39556 38549 70244 37948 17987 87787 31875 26073 29344 94112	24829 41097 26298 07125 14590 18864 24315 31588 22207 24813
09440 23318 57380 45155 75510 33008 71355 88205 61502 07321	88699 17760 91736 17866 96271 76014 06030 81195 99837 13166
06875 42478 98554 69736 03868 44706 79708 21044 60187 94529	09770 19748 79523 31623 38567 48914 59042 76106 44996 48325
96542 96135 84697 87497 99019 22673 62779 72421 71780 90901	75647 70913 99319 58164 20706 47968 35668 14516 57373 53352
20317 07354 79032 32336 39224 43077 85505 70898 15439 22068	78874 02428 02515 05630 38391 11696 53274 66946 55259 27798
15473 06319 66958 55754 53997 66916 74237 75365 46420 69285	19633 06130 27344 22601 50194 72471 57764 16734 14793 56526
70769 98579 74895 55546 72553 72003 40888 71078 77930 54117	98440 09537 64355 96145 28711 51714 27899 96895 86631 21888
87089 82344 03359 89335 03673 30311 04088 34177 39722 15461	57441 03124 10113 99908 50759 51733 65876 68874 49533 14004
04081 27974 54452 09753 41831 28051 99681 30031 36329 81160	94428 90094 44966 05779 40067 80855 62357 45943 12009 08984
06237 81213 45006 97956 92338 80050 68102 61092 86016 33192	98876 20189 17049 91755 69167 65428 65618 20831 98150 88836
66926 96565 24894 88350 07163 75206 56023 94941 85844 33227	12355 99033 99392 98711 25106 93895 80151 60968 09663 36533
10208 27412 99007 84282 84853 64929 54684 20633 88812 91148	60114 64894 49020 41776 29618 12230 61069 84290 30527 17414
78193 35295 64806 42498 70824 16330 46104 05729 78266 07815	19447 92901 18609 14369 33511 58552 38479 78147 97208 73943
95362 22247 28153 08500 24776 80075 62038 47227 05210 67893	67319 39432 14566 22106 02582 46305 19071 76257 42010 49079
39462 56422 92604 00413 21340 25532 59892 14846 33287 64927	21764 73024 12072 51090 58139 06085 31819 10461 95798 77367
51129 49271 15574 42752 24525 92036 84350 09799 03019 53425	94689 30436 26835 97446 18669 44215 02707 56719 25311 60965
34790 79088 79893 38242 96940 93959 87527 17101 18990 49646	94740 91180 14860 72652 01887 60073 10439 62476 05665 54058
61878 05143 93373 54845 81463 50816 33206 46659 42796 22559	37528 29279 31979 26136 93342 81070 96316 51612 53923 04444
44792 66404 23877 07576 62973 11514 000 000	89344 69297 39974 91360 73031 50947 78015 08049 50996 58130
	59160 68908 09411 80752 000 000
Courtesy Gert	Courtesy AB

M14 IA MCW / ICW Short 0

May 2022:

10243	0520z	04 May	952 (630 51) = 74655....	(Via SDR Japan)	HFD	WED
12211	0500z	04 May	952 (630 51) = 74655....	(Via SDR Japan)	HFD	WED
16347	0930z	10 May	617 00000	(SDR Utwente)	ER	TUE

June 2022:

10243	0523z	17 Jun	952 (467 51) = 93393 53543 ... 55746 91783 = 467 51 51 00000 (Via SDR Japan)	F5JBR	FRI
16347	0930z	10 Jun	617 00000	HFD	FRI
	0930z	25 Jun	617 00000	ER/HFD	SAT

M23 O ICW

Peter, (PoSW), found M23 in progress on Sunday, 12 June, following it up with further transmissions on Monday 13 June. Here is his report;

Return of M23 on 5435 kHz:-

The strange Morse station which turns up every once in a while on 5345 kHz sending a slow three-figure or letter group over and over for several minutes - or for a longer period of time - showed up again in June. The last time I heard it was towards the end of February of this year, if it had been active in between time then I missed it but it was certainly in business in the second week of June although it was only heard for a few days - but perhaps it had been there unnoticed for some time beforehand.

12-June-22, Sunday:- 1502 UTC, 5345 kHz Slow CW in progress sending 3 x 5 dash "000", not too strong, certainly not as strong as when heard in the winter. Stopped 1506:45s UTC approx.

Not the end of it:-

1529 UTC, in progress again with "000", stopped after 1536:40s UTC.

Left a receiver tuned to 5345 kHz but nothing further heard for the rest of the afternoon and early evening.

It transpired that three separate short transmissions were in existence:-

13-June-22, Monday:-1428 UTC Just after, "000", stopped at 1436:40s UTC.

1458:14s UTC, "000", stopped 1506:40s UTC.

1528:12s UTC, "000", stopped 1536:39s UTC.

These three transmissions heard at similar start and stop times, or a bit earlier, on Tuesday the 14th and Wednesday the 15th; but that was the end of it, did not show up on Thursday the 16th or following days.

Thanks for the report, Peter. Here are the logs in tabulated form;

5345	1502 (IP) - 1507z	12 Jun	000	Fair	PoSW	SUN
	1529 (IP) - 1537z	12 Jun	000		PoSW	SUN
5345	1428 - 1436z	13 - 15 Jun	000	(R8m)	PoSW	MON - WED
	1458 - 1506z	13 - 15 Jun	000	(R8m)	PoSW	MON - WED
	1528 - 1536z	13 - 15 Jun	000	(R8m)	PoSW	MON - WED

Morse Stations - Not Number Related

M42 IC

M42 is a designation originally assigned by the original ENIGMA group & covered a number of formats & modes. The group of stations was later identified as belonging to the Russian government / intelligence / diplomatic services & as such was deleted from the ENIGMA Control List as being outside of the numbers station remit. However, the station still attracts interest and is regularly still monitored & will be featured in all forthcoming newsletters.

Mode is Morse or Baudot ITA2 50/500, (RTTY - FSK) 3rd Cyrillic alphabet with Op. chat in CW both before & after the main message transmission.

Mav 2022:

No reports

June 2022:

11561 1130z 08 Jun CW/FSK 50/500Hz shift AB WED
Probably a weekly schedule. Ary, (AB) copied it also on 01 June, also at 1130z, but didn't find it during the rest of the week. The other half of the link was also not found.

Operator chat in FSK CW, messages in FSK 100bd/500Hz shift. As previously monitored it always sends two messages, one 5-figures groups message and one 5-letters groups message. It is still using this format.

RHO RHO RHO RHO RHO RHO RHO RHO RHO
QSA4 QSA K
QTC2 K

11100 30109 59621 08079 05003
86049 25637 02179 80187 83078 68515 09444 01861 23161 52414
70883 41335 94716 45093 28587 00547 39827 93941 79453 38662
02739 37261 75300 91407 20263 24999 70346 27217 96256 59915
70740 13629 27374 95078 65831 92378 72273 48660 45860 86622
81470 21942 35768 88719 30021 31490 99806 02026 20227 91422
96630 35124 46544 06717 89571 71939 39893 63481 41775 66159
33539 27151 50886 33423 17755 84511 02972 39687 75434 90529
50373 09234 15847 05891 43170 00735 48733 36201 68942 24824
65911 08791 80526 01611 22596 48048 16441 81574 35608 35227
43679 78271 40674 63670 77550 86296 75979 25368 58266 82940
84199 89815 88938 36969 50157 61084 64706 72974 16322 24058
47652 64729 43325 15760 67214 55979 07688 82725 50769 32118
53931 10341 14081 91177 43284 35087 66297 87571 66146 75643
09193 47029 10520 43770 35323 76162 03577 20909 54808 15094
68563 11453 05405 06593 64223 08607 25577 80150 98926 33786
95229 74436 36695 35489 73818 46565 37305 58575 90503 41629
97667 19897 66041 20906 86658 51210 71106 72212 90595 95313
50719 50812 11551 66344 69485 24329 85673 10171 57312 20111
13734 25826 60308 98458 21045 33903 26543 00184 88984 02874
81357 41913 25267 69248 71915 57585 65190 12514 85679 09580
21017 70809 72496 17909 21687 08251 24988 80913 10056 69855
96929 85904 89838 85003 64303 33176 39441 05374 58715 21845
34881 88283 27860 70932 48981 61380 02731 74145 19005 29622
76249 11788 99954 10470 23008 68228 45688 08254 14820 28385
85063 63622 11750 51641 85286 39043 33326 46644 19652 26258
39610 95423 81869 86665 76826 00256 14159 60539 67215 51726
41302 06038 47831 41420 27836 53931 87934 67675 00584 88996
39701 07844 03703 94000 01908 55492 78435 17227 01299 45979
84763 49472 21317 18857 07134 21446 32882 90516 11463 57534
06909 35531 45594 46828 13255 00127 00401 17393 35770 96219
73715 24687 58166 49454 04290 90078 00351 99690 67954 50405
09959 77359 53170 04496 38734 04144 58170 67613 58466 91408
76866 69733 96165 34823 65709 58620 93161 28617 08701 93615
17822 47890 22736 41093 86558 72442 70456 07508 72836 50534
72823 70984 08853 26028 38581 97372 09574 77346 52791 51716
73830 41689 91655 41071 42150 22933 55783 49605 16009 06664
39102 51922 68207 30781 75611 15547 99035 85096 31144 28504
17939 38381 32340 12939 55343 16288 50016 10707 34362 78589
79117 51869 57039 69179 82430 42044 84840 37248 90267 29538
18061 53103 73281 38201 03857 67048 30622 76941 27570 84767
60609 61842 67040 57653 06109 11803 14603 11506 91811 03666
96435 62060 95584 97745 43969 90760 21103 69708 97027 79221
63925 09733 43398 25832 88227 74898 24516 92909 56358 05736
61942 57870 78419 42863 84338 66833 74049 04673 59616 14112
63610 11980 61944 96007 30941 70585 28308 12377 24896 47686
84313 14370 91832 03068 43914 21813 56244 61027 12740 58646
91724 33946 49748 79878 49454 33468 66843 88468 36395 30209
71184 65596 60372 47942 79850 62744 84245 03188 61557 29037
56347 26160 85115 72270 09378 23986 79310 77066 44945 72160
33897 28601 45936 45155 96394 15333 83908 22122 44375

11100 30109 59631 08080 05003

SIARD SVJHA FHIVC AVMWS FOQFK PIOOA DQCUR VQPWG OOPCU UPBXE
OYBXB AEBOW XUFFH COKIA UKWPM IHDNT GFNRD WYFDK LRGSS QDFBD
HPOVL GYJI PQICM OFAQC AYTOH WLJIN TCJIG QXLTQ ROBQP TMORC
JYVYB DCPBK OARQA JVWHF TVBQP IPVC NBKHD OOSTQ WLFBW QGAMU
AIJGJ GMWUK CSKDE NSYKM NXQPT JWCWU FRUWE NSOOB AMBMR SXHVE
JKVRO TKIJK IMDWX MRTKP AEYPU RGLBE DHBJF PBGKO HIMBI UWAEA
RCSN YSASB XYOGU BIWVX SIWVC PABSD OCDJY JLELI IOYKQ CTVAP
HKKER MKNGD TNPQI OOAII TAWFM LDQVE GJFSF FLUJJ GTTVW EDLYP
TBYQX IABGU QDCQA OXYEX OWERW RQXKN XKFHI GPPWF NJQRV MNFEL
EFFBE TQPDG GYFWF MQBSU PBYDA QVREL KCBJF YMWA PRVSS JCQUR
RAPVY SQQQU VRCSO JYCIA CJFKN KVVVB ABPJK THWIE XBYXM TWPRY
YGVDC XVHFE EOUIM JMGAF MLLGL STYIS DJQSG OJRJK GJALV NQOIR
THKQF CUFBP NUSGP RVBYX XMXFA LFCDV MPKPC RHWYC HJKDN VDILU
MWIXR WXREM FFOH SIJWR KRHLK JGMOF IAJIS WPHHV FGEXY HEAQG
JDDWW KYNFT FQEWS EGDCU NBEHX KKMWB JTHSR DQJUX LNJFB MPWGF
FKASD VAIKY MQPEH OBKDS NFMSK NIWQX FKMUR YLNGM PRJQC ODMUK
TOJUR ORGWE INSPB UIERD RAPOX BOVTA AFUHT RXXPF XGWN MJMIG
SYNBB RWEHT GLGRN SMUSX NFCBJ ROIOY UORNJ DOFGB MWVQP DYGPR
HWVEI LNUUG GFMXA SXWWH NVAPV IRLCP IQLIB DBIVU MXNQ NCITOF
PGLQN DUUQE VCGHR LODBL SBWVB IFEPD KDNMJ KMNIE BIXIE NCPUI
NNDMS FVVG Y ASCWG LUDDR EDDQB MFRIN GBYGY XVUXK OQASW BPPUR
JHGDN IREQI YLMLK HVNSF CUKYI QUEHP TAXXR KLEHK DKXYV DGBE
ARFUX UYJMG BDMWJ WPTOO GRNEV TYJXQ TKRGL ACYEA CHRXD DWKJU
DMRY Y FDTIV VBWPY MNGWW MCNOA VHKN MUVM TRLQP OCMVC YDVSF
BNSLI PTUXM EBORY RMRXD BEEWS LTMOJ TMHDW GQCVT IXGQI FHURH
CVNLS AVHDA VXJF NIYHW CWIIE WSRBC FGNLA SVGNP EEWTB RHYQK
SDIFB HATFE CKRTR EXKEQ WRNNI HJUVE QSACK BXHOI QPRFR NIONF
HEJUT JGHSR EFMJV HGRYS ORRIR NQRN NWVXU CDVUL MXJTO ERLSM
LBHXI OLWXT LJKON BNRPY GYLQO VNLK UXCPA TFGTN SVRMG NAVCR
ANBYB OYGB UJIOX RNPY CFFKY UTEXQ PDWES WCYHC XJBKN ALOPU
UBHEJ JLNHF CVKXO IAJBR KPBGD NVYOM RLKKT KDDKE VMDWK DCTIM
TEMLH GPARG MPYMB VKIFN LOBCU KSOJH XASMC WPAQX XPWAK TCTRC
KWKXF HWBAD YERMW FNSHS ELOBU TUVWG OGFWM SFODM FOISG CQNC E
VTPUR ORYQF DDMBC UAVQO INSQN PCTAE XWBWG PGGIO FCMWL HLHPL
SGICI DNERD LMDBW FMOIH XMOOU VYNL HYGOV BDPYT UNBKP FSCCQ
BXDPM QEVAE KTFHS CTOSS HKFXG LFKCH AYLLW TPBQO DHEJU OHAYQ
BBSCX ECPQE WWYVR HPTET PHKUS RVFSE HMKCH MAPFO OKEGF WUXBJ
JXLCJ KWPGC JLOLN JQGTJ OOKNH CUUAW KHBBS SKIN HIIT TNFIR
OJVP JXLHP LVFDV UFPFO QHNIG XSXXC QDXCC LMHYS AJGML NECRX
TJIFR JYLYK OHOPN VXQDY OQTNP QJAFP ELLUT XVITY UVTDX YGMMO
RREFP PTETD VXVUI LFRIV IGUVE UIXYT LICCL TKJIV TIVIX GEKUD
RHVMJ DWNBC UYXPE HJBFV FDVBP GVRBM PJUUK VNOIL FUYFQ SRVFB
DDYRW PKMEU RYOWT TMUHA JRRGX GTLHT KDFQM XGKGB PAGSL TXAHE
QLFGC LCMBG LOTWF YYANQ WNAHN GAKYN PQQYN EVIFF QEPEG LNWTI
WQUOH MROVS UUXWI PHKCM AEJSB YFBEJ DHRMJ KPBNI MCONI STQWV
TLAK DYTEJ TPLKV JPGGE HRRHS VNWB JFNPQ APCMV AJRAA FPKJE
PRTMM PYCXC GCJTX CUDFY NASLV EEJPO EWFGF BIJUA MHNHY VCXHB
BPKKR EUVJQ UWLER CNIWY WRYQY MXIBW OFKOO RPNVD WUSII LYFYV
AUQMN NSGRW NRIQD UAYGU TDFTB UPBXI KQPH CFLAH YDDUI FPAST
VRDHS MDCBC SUEMK CWOOE WTPWB MNIRK HEUBA GYIID APPTHE

QRQ 100 K
QRV
BK
QRV
QSL 2 NIL K
RPT K

Courtesy AB

M51 XIX

3881//6825 100 grp 5-ltr messages with headers

No reports – M51b format in use

M51a (FAV22) Daily Mon - Fri, Sun & some Sats. See NL 72 for details

Irregular Transmissions Continue

In our last newsletter we reported on the uncharacteristic absence of M51 over the Easter period & the station's irregular appearances on resuming transmissions.

This was far from normal activity for the station whose presence on their two core frequencies had been a regular daily feature for decades & in recent years, their output of apparently endless groups could be heard around the clock.

In May, the station was noted with a continuous output on only eight days, & with a partial output on a similar number of days, (usually appearing for the scheduled lesson format with continuous groups either before or after the lessons), with the station being off-air for the remaining days.

The appearance of the station, with either a continuous or partial output doesn't appear to conform to any pattern or schedule, the only rough observation being that approximately one-third of the month is respectively taken up with continuous output, partial output or no activity at all.

Peter, (PoSW), also noted the changes in the M51 transmissions. Here is his report & comments;

This French Morse station sending groups of five characters on 6825 and 3881 kHz continues, 6825 usually a strong signal – but not always in recent weeks, casually tuning to that frequency at times when activity might be expected to be in progress has produced a “nothing heard” observation but it might just be down to propagation. The 40 metre amateur band a bit higher up often shows wide variations in propagation from day to day.

Some unusual activity noted on one occasion:-

12-May-22, Thursday:- 1720 UTC. 6825 kHz, CW in progress, not the usual groups of five sent automatically, but hand-keyed using call-sign F9TM. Nothing on usual parallel 3881 but was on 3536 in the 80 metre band. Sending “CQF DE F9TM....RESEAU NATIONAL FRANCAIS”, a bit later appeared to be exchanging reports with French amateur stations on 3536, weak, also being relayed in parallel on 6825, much stronger. My attention divided between this and the PBS America TV channel which at this time was showing an espionage-themed programme, “Secrets, Lies and Atomic Spies”.

At 1836 UTC fast groups of five on 6825//3536, much as usually heard from M51b, still on in this mode at 1940 UTC, gone from both frequencies when checked just after 2000z. This variant using the F9TM call-sign on 3536 has been logged before, on 17-Sept-20 and 28-Feb-19 just to give two examples, also Thursdays; presumably there is an emergency communications organisation in France involving radio amateurs something like RAYNET in this country but more integrated with the military which holds on-the-air exercises from time to time. Somewhat strange to be using Morse for such a purpose in this day and age when in an emergency messages could be passed more rapidly using SSB or digital modes.

Other Logs:

3881//6825

1130 - 1212z	23 May	Lundi-Leçon	21-2/1 Codé	21-2/2 Clair,	21-2/3 Codé,	21-2/4 Clair (420 grps/hr)	BR	MON
1130 - 1200z	17 May	Mardi-Leçon	12-2/1 Codé	12-2/2 Clair,	12-2/3 Codé,	12-2/4 Clair (600 grps/hr)	BR	TUE
1130 - 1204z	18 May	Mercredi- Leçon	13-2/1 Codé,	13-2/2 Clair,	13-2/3 Codé,	13-2/4 Clair (720 grps/hr)	BR	WED
1130 - 1155z	12 May	Jeudi- Leçon	04-2/1 Codé,	04-2/2 Clair,	04-2/3 Codé,	04-2/4 Clair (840 grps/hr)	BR	THU
1130 - 1203z	10 Jun	Vendredi- Leçon	15-2/1 Codé,	15-2/2 Clair,	15-2/3 Codé,	15-2/4 Clair (960 grps/hr)	BR	FRI

M51b

Non-stop 5-character groups composed of M51a messages on 3881//6825kHz

3881//6825

1357z	06 Jun	Non-stop 5-character groups composed of M51a messages	BR	MON
2228z	06 Jun	Non-stop 5-character groups composed of M51a messages	BR	MON
2138z	10 Jun	Non-stop 5-character groups composed of M51a messages	BR	FRI
0025z	15 Jun	Non-stop 5-character groups composed of M51a messages	BR	WED

M89 O

This is a summary of activity from the M89 stations.

Traffic & Operator Chat from M89

Traffic & Op. chat reported on the following freqs. (All in kHz).

4081	5013	8217	9061	10489	11165	12090
4158	5064	8461		10525	11169	12120
4166	5110			10581	11451	12123
4235	5684			10587	11482	12127
4239	5725			10653	11643	
4266	5751			10711		
4272	5878			10768		
4287						
4311						
4358						
4372						
4539						
4540						
4612						
4819						
4820						
4834						

Chart of M89 Freq & Call signs heard in Mar / Apr 2022. From logs submitted from JPL & F5JBR

<u>Freq in KHz</u>	<u>Call Slip</u>
3596//4888	V QYE2 (x3) DE 9WFV (x2)
4034	V MJO5 (x3) DE LK9M (x2)
4860// 6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) QSA ? K
4888/NRH	V QYE2 (x3) DE 9WFV (x2)
6824//NRH	V QYE2 (x3) DE 9WFV (x2)
7620//8350	V WNF(x3) DE FXM (x2) (R5) (Hand Sent)
8182//NRH	V QYE2 (x3) DE 9WFV (x2)

4166	1907z (IP) 16 May	QSY 26 QSY 26 VVV (Exercise related)	(Remote tuner Novosibirsk)	JPL	MON
4239	1908z (IP) 16 May	NR 758/EX 0312 BT 6P9/Z2G0 AR	(Remote tuner Novosibirsk)	JPL	MON
4358	1709z (IP) 12 May	NR 7178 CK 051 43 0513 0100 RMKS 2735852 TO 2735853 BT	(Remote tuner Novosibirsk)	JPL	THU
4820	1919z (IP) 16 May	584/EX 0314 BT DZT3/F7C4 AR	(Remote tuner Novosibirsk)	JPL	MON
5751	1722z (IP) 12 May	NR 0191 CK 51 49 0513 0100 RMKS 2735514 TO 2735517 BT	(Remote tuner Novosibirsk)	JPL	THU
8217	1442z (IP) 16 May	IEC BT QSOL AR K (Exercise related) NR 33.2 CK 71 39 0516 2240 RMKS 3661570 TO 3661573 K	(Remote tuner Novosibirsk)	JPL	MON
8461	1448z (IP) 16 May	BT BNNF AR K VV ADDS AR K	(Remote tuner Novosibirsk)	JPL	MON
10489	1HXW 0426z 17 Jun	NR 1264/EX 1224 = W2S1/XZB3 AR QSY 75 VVV	(Via SDR Japan)	F5JBR	FRI
10525	0418z 17 Jun	NR1261/EX 1225 = O6H5/L00R AR QSY 72 VVV	(Via SDR Japan)	F5JBR	FRI
10581	0412z 17 Jun	NR1259/EX 1209 = O5K4D9M6 AR QSY 71	(Via SDR Japan)	F5JBR	FRI
10587	LIX7 0437z 17 Jun	LIX7 Working IW9D NB3G IQLS (QSO and MSG) in Duplex NR 1168 CK81 54 06 17 1230 RMKS CQ = 35TS D6AU ... / ...	(Via SDR Japan)	F5JBR	FRI
10653	3AZS 0415z 17 Jun	NR1260/EX 1212 = B7NN/UQ12 AR QSY SW	(Via SDR Japan)	F5JBR	FRI
10711	4RGN 0421z 17 Jun	NR 1262/EX 1218 = A7Y5/E0C3 AR QSY 73 VVV	(Via SDR Japan)	F5JBR	FRI
12127	1005z (IP) 08 Jun	V AP4R (x3) DE N5RV (x2) 891U/XX635/1237/34/62/03/X535A/COMM/1386 AR RSVC GA RSVC GA BT	(Remote tuner Novosibirsk)	JPL	WED

M89	12127kHz	1005 (IP) - 1007z	08 June 2022
V AP4R (x3) DE N5RV (x2)			
V AP4R (x3) DE N5RV (x2)		(IP – Cont'd – 1005z)	
R SVC GA BT			
891U/XX635/1237/34/62/03/X535A/COMM/1386 AR		(1006z)	
RSVC GA RSVC GA BT			
891U/XX635/1237/34/62/03/X535A/COMM/1386 AR			
R WK NR 510 NIL SK NIL SK		(1007z)	
<i>Courtesy JPL</i>			

M95 O XSV, XSV70, XSV85

M95 Morse Logs (Bold type indicates new logging)

3642//NRH	Call Sign 3A7D	(Active daily - only first marker log has been included)			
3642//7602	Call Sign 3A7D	(Active daily - only first marker log has been included)			
3794	1400 (IP) - 1409z	05 Jun	NR 185/CCK CK 25 47 0605 1001 RMKS 38475 TO 36A..8475 TO 3612 BT	(Remote tuner Novosibirsk)	JPL SUN
4178//NRH	Call Sign S2DJ	New frequency for this new Round Slip. Believe this to be new Round Slip and freq for YHDX DE SAQC			
	1420z	17 Jun	(Only XP5B de S2DJ V) in Broadcast	(Via SDR Japan)	F5JBR FRI

4178//7517	Call Sign S2DJ 1655z	12 May	V XP5B (x3) DE S2DJ (x2)	(Remote tuner Novosibirsk)	JPL	THU
	1411z	05 Jun	V XP5B (x3) DE S2DJ (x2)	(Remote tuner Novosibirsk)	JPL	SUN
4220	1711 (IP) - 1730z	15 May	(Appears to be exercise traffic) NR 1243/EX .. RMKS .1. .. 43 BT NR 1245/EX 0. RMKS 0656 TO 5243./BT NR 151/EX 0120 RMKS 0L58 TO 5047 BT BET8/Z8VN AR K	(Remote tuner Novosibirsk) 5SH/..OM. 5SHE/DTOM 5FT8/Z8VN AR	JPL	SUN
4243//NRH	Message number differs from current XSV70 and XSV85 message numbers. 1144z	01 May	VVV HR MSG TO YR PSE CY (Signal too weak to copy - 1149z)	(Remote tuner Japan)	JPL	SUN
4243//9054	Message number differs from current XSV70 and XSV85 message numbers. 1144 (IP) - 1149z	16 May	NR 32 CK 142 35 0516 1532 BT	(Remote tuner Japan)	JPL	MON
4364//8073	Call Sign XSV85 1129 - 1143z	01 May	NR 0333 CK 402 35 0503 1629 BT	(Remote tuner Philippines)	JPL	SUN
	1129 - 1142z	16 May	NR CK 393 35 0516 1556 BT	(Remote tuner Vietnam)	JPL	MON
	0002 – 0007z	08 Jun	NR 0423 CK 076 35 0603 8 0643 BT	(Remote tuner Hong Kong)	JPL	WED
9054	Call sign XSV85 (See also 4243//9054kHz listing) 2342 (IP) – 2359z	07 Jun	NR 092 CK 18 35 0608 0601 BT NR 008 CK 48 35 0608 0623 BT NR 15 CK 070 35 0608 0703 BT	(// 4243 N/H) (Remote tuner South Korea)	JPL	TUE
10180	Call Sign 3A7D	(Active daily - only first marker log has been included)				
10722//NRH	Call Sign 3A7D 1048z	01 May	YHXD (x3) DE SAQC (x2)	(Remote tuner Khabarovsk)	JPL	FRI

M95 4364//8073kHz 1129z 01 May 2022

Into voice Chinese Male 1129z
Switched to Chinese digital 4+4 QPSK 75/3000 LSB 1130z
Switched to CW – Hand sent 1141z

V BNGC (x3) DE XSV85 (X2)

M95	9054kHz	2342z (IP)	07 June 2022
In Chinese digital 4+4 QPSK 75/3000 LSB in progress 2342z Switched to CW Hand sent 2346z			
VVV HR MSG TO YR PSE CY (Signal too weak to copy) NR 092 CK 18 35 0608 0601 BT UT5 TTD 3U4 3A4 TTA TTU TT3 773 353 U4T 354 37U 4T6 445 4D6 N3D 4D3 3DA AR MSG AGN NR 092 CK 18 35 0608 0601 BT (Repeats message - 2348z) AR A HR MSG GA (Very good CW operator!) NR 008 CK 48 35 0608 0623 BT 5AA UTT TTD 3U4 3A4 5T7 5TD 75U 353 U4T (Cont'd - 2349z) AR MSG AGN NR 008 CK 48 35 0608 0623 BT (Repeats message - 2351z) AR A HR MSG GA NR 15 CK 070 35 0608 0703 BT UTU TTD 3U4 3A4 TTU 773 354 373 336 N3D 353 (Cont'd -2354z) AR MSG AGN NR 15 CK 070 35 0608 0703 BT (Repeats message - 2357z) AR A HR UP SB WK (2359z)			
Switched to voice USB Chinese Female – Robot			
<i>Courtesy JPL</i>			

Marker Beacons (MX MXI)

5153.7	2117z	07 May	MXI	CW Beacon "D"	Sevastopol	BR	SAT
5153.8	1934z	23 Jun	MXI	CW Beacon "P"	Kaliningrad	BR	THU
5153.9	2117z	07 May	MXI	CW Beacon "S"	Severomorsk	BR	SAT
5156.8	2116z	07 May	MX	CW Beacon " L "	St Petersburg	BR	SAT
	1912z	18 May	MX	CW Beacon " L "	St Petersburg	BR	WED
	1957z	21 May	MX	CW Beacon " L "	St Petersburg	Moderate chpa	SAT

7508.7	1910z	18 May	MXI	CW	Beacon	"D"	Sevastopol		BR	WED
7508.8	1352z	14 May	MXI	CW	Beacon	"P"	Kaliningrad		BR	SAT
7508.9	1352z	14 May	MXI	CW	Beacon	"S"	Severomorsk		BR	SAT
7509.1	1909z	18 May	MXI	CW	Beacon	"A"	Astrakhan		BR	WED
8494.8	1351z	14 May	MXI	CW	Beacon	"P"	Kaliningrad		BR	SAT
8495	2034z	14 Jun	MXI	CW	Beacon	"C"	Moscow	(Distorted)	BR	TUE
8495.1		14 Jun	MXI	CW	Beacon	"A"	Astrakhan	(Weak)	BR	TUE
8497.8	1350z	14 May	MX	CW	Beacon	"L"	St Petersburg		BR	SAT
10871.7	1348z	14 May	MXI	CW	Beacon	"D"	Sevastopol		BR	SAT
10871.9	1906z	18 May	MXI	CW	Beacon	"S"	Severomorsk		BR	WED
10872.1	1905z	18 May	MXI	CW	Beacon	"A"	Astrakhan		BR	WED
13527.7	1347z	14 May	MXI	CW	Beacon	"D"	Sevastopol		BR	SAT
13527.8	1940z	23 Jun	MXI	CW	Beacon	"P"	Kaliningrad		BR	THU
13527.9	1046z	30 May	MXI	CW	Beacon	"S"	Severomorsk		BR	MON
13528.1	1903z	18 May	MXI	CW	Beacon	"A"	Astrakhan		BR	WED
16331.7	1345z	14 May	MXI	CW	Beacon	"D"	Sevastopol		BR	SAT
16331.8	1942z	23 Jun	MXI	CW	Beacon	"P"	Kaliningrad		BR	THU
16331.9	1346z	14 May	MXI	CW	Beacon	"S"	Severomorsk		BR	SAT
16332.0	2030z	14 Jun	MXI	CW	Beacon	"C"	Moscow		BR	TUE
16332.1	1345z	14 May	MXI	CW	Beacon	"A"	Astrakhan		BR	SAT
20047.8	0959z	24 Jun	MXI	CW	Beacon	"P"	Kaliningrad		BR	FRI

Oddities

'The Air Horn'

3510	1951z	21 May	Marker signal (Air Horn)					Excellent	USB	chpa	SAT
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'The Alarm'

4770	1955z	21 May	Marker Signal (The Alarm)		Minor QSB		Moderate	USB	chpa	SAT
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S28 'The Buzzer'

4625	1954z	21 May	S28	'The Buzzer' Marker	QRM from digital transmission	Good	USB	chpa	SAT
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S30 'The Pip'

3756	1953z	21 May	S30	'Pip' marker (Night freq)	Minor QRM	Weak	USB	chpa	SAT
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4182 'T Marker'

1956z	21 May	Normal CW sound "T" from the T Marker					Moderate	USB	chpa	SAT
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All logs from chpa Monitored from Stockholm

Contributors:

AB, BR, chpa, ER, F5JBR, Gert, HFD, JPL, PoSW *Thank you all for your logs.*

Voice, Polytone, Tones, Hybrids and FSK

It seems over the last two months we have seen less voice logs posted; holidays and other reasons doubtless. The loss of some E07 regulars and the entire E07 a schedules surely contribute to this, as does the loss of E17z and S06s. With the amount of null messages showing in the remaining E07 schedule across two months it seems the writing may well be on the wall for those stations also.

In the 1953 film 'The Cruel Sea' the Captain played by Jack Hawkins was confronted by his No1 whilst the ship was in port. The Number One was drunk and confirmed as such to the Captain when challenged. Hawkins uttered and repeated a memorable "It's the war, Number One, the whole bloody war." That was 69 years ago but states a reason for the loss of some excellent schedules today.

E06

From Peter, PoSW we read:

First + Third Thursdays in the Month 0500 + 0600 UTC Schedule:-

5-May-22:- 0500 UTC, 14565 kHz, just missed the start, tuned in approx 0505z. In progress, reasonable signal, ended around 0514z with, "792 792 58 58 00000".

0600 UTC, 16125 kHz, second sending, call "460", strong signal. Same frequencies as in May of last year courtesy of prediction list in newsletter 124. Repeated on the following day:-

6-May-22, Friday:- 0500 UTC, 14565 kHz, weak at first, stronger after a few minutes. 0600 UTC, 16125 kHz, a couple of S-points weaker than 24 hours earlier.

19-May-22:- 0500 UTC, 14565 kHz, "406" and DK/GC "237 237 51 51", weak signal. 0600 UTC, 16125 kHz, stronger, ended just before 0613 UTC.

20-May-22, Friday:- 0500 UTC, 14565 kHz, first sending of the repeat, stronger than 24 hours earlier. 0600 UTC, 16125 kHz, started off weak, became stronger by 0605z.

3-June-22, Friday:- Forgot to listen on Thursday the 2nd, frequencies on Friday as per the prediction list:- 0500 UTC, 13985 kHz, call "328", DK/GC "619 619 54 54", not too strong. 0600 UTC, 15830 kHz, much stronger, peaking over S9.

16-June-22:- 0500 UTC, 13985 kHz, very weak, could just make out the "328" call. 0600 UTC, 15830 kHz, much stronger, DK/GC "709 709 51 51", ended just before 0613 UTC.

17-June-22, Friday:- both the 0500z and 0600z repeats very weak, unreadable.

Logs compiled by RNGB say much the same as Peter:

E06 May/June log:

Monday		0210z	11404kHz	0310z	13562kHz
16/05	'537' 106 32 74913.....etc	(Thanks HfD)			
		0210z	11559kHz	0310z	13813kHz
06/06	'537' 284 35 63294.....etc] +2 kHz				
Thursday (repeats Friday)		0300z	14767kHz	0400z	12157khz (frequencies may vary slightly)
05/05	'361' 258 46 63764.....etc	(Thanks HfD)			
		0300z	14932khz	0400z	12212kHz
02/06	'361' 479 50 04417.....etc]	((Thanks HfD)			
First /Third Thursday (repeats Friday)		0500z	14565kHz	0600z	16125kHz
05/05	'460' 792 58 80955 19713 38314 79832 75482 56399 89166 06932 55452 71845 24361 72615 31943 92216 03600 94696 66619 61068 95812 48565 65112 24988 01100 45534 13072 32611 39567 45777 84584 95455 49246 16672 77638 84007 60279 72486 56331 57502 37570 56361 04503 50832 09070 50506 20476 67020 21898 25556 07608 48697 93485 65034 40318 27025 49926 25839 10302 71491 792 58 00000				
		0500z	13985kHz	0600z	15830kHz
02/06	'328' 619 54 37861.....etc]	Thanks HfD			
16/06	'328' 709 51 16455 57590 44415 42897 75187 51470 09334 17260 56686 11603 94172 67311 61133 29297 82499 21023 54041 35413 20099 39713 78992 07806 70922 91555 93914 96436 61419 66972 16825 95857 61681 78124 91984 19737 76847 09653 12406 57129 47187 12892 59637 15173 80328 60719 46777 77888 64042 05244 75646 35798 33031 709 51 00000				

Thanks RNGB and PoSW

E07

Sunday + Wednesday Schedule, 1700 UTC Start:-

1-May-22, Sunday:- 1700 UTC, 13934 kHz, “919 919 919 000”, weak but clear enough.
1720 UTC, 12134 kHz, much stronger, well over the “9” on the S-meter.

4-May-22, Wednesday:- 1700 UTC, 13934 kHz, “919 919 919 1”, full message routine, DK/GC “507 49” x 2, weak.
1720 UTC, 12134 kHz, very strong signal.
1740 UTC, 10934 kHz, very weak, made worse by local interference.

8-May-22, Sunday:- 1700 UTC, 13934 kHz, “919” and “507 49” again, good signal, much stronger than usual for this frequency.
1720 UTC, 12134 kHz, not quite as strong as usual.
1740 UTC, 10934 kHz, weak signal and local QRM, unreadable.

11-May-22, Wednesday:- nothing heard at either 1700 UTC, 13934 kHz or at 1720 UTC, 12134 kHz.

18-May-22, Wednesday:- again, nothing heard at both 1700z and 1720 UTC.

Nothing further heard from this schedule during the rest of the month of May and nothing heard on the predicted frequencies for June. It looks as if this one has gone.

Saturday Schedule, 1300 UTC Start:-

7-May-22:- 1300 UTC, 12176 kHz, “152 152 152 000”, S7 with deep fading.
1320 UTC, 11576 kHz, S5 to S6.

14-May-22:- 1300 UTC, 12176 kHz and 1320 UTC, 11576 kHz, “152 152 152 000”.

21-May-22:- 1300 UTC, 12176 kHz, weaker signal than usual, “152 152 152 000”.
1320 UTC, 11576 kHz, somewhat stronger than usual.

28-May-22:- 1300 UTC, 12176 kHz, “152 152 152 000”, strong at first, rapidly became weaker.
1320 UTC, 11576 kHz, unlike the first sending started off weak and became somewhat stronger.

4-June-22:- 1300 UTC, 12176 kHz, “152 152 152 000”, strong signal.
1320 UTC, 11576 kHz, weaker.

11-June-22:- 1300 UTC, 12176 kHz, strong and 1320 UTC, 11576 kHz, weaker, “152 152 152 000”.

18-June-22:- 1300 UTC, 12176 kHz, “152 152 152 000”, strong signal.
1320 UTC, 11576 kHz, weaker.

25-June-22:- 1320 UTC, 11576 kHz, missed the 1300z sending, “152 152 152 000”.

Sunday Schedule, 0600 UTC Start:-

1-May-22:- 0600 UTC, 10317 kHz, very weak, unreadable, second sending better.
0620 UTC, 11117 kHz, “312 312 312 000”, weak but readable.

8-May-22:- 0600 UTC, 10317 kHz, “312 312 312 000”, weak.
0620 UTC, 11117 kHz, also weak.

15-May-22:- Nothing readable at either 0600 or 0620 UTC.

29-May-22:- Nothing readable at 0600 UTC, second sending much better:-
0620 UTC, 11117 kHz, “312 312 312 000”, strong enough to over-ride local RF noise interference.

5-June-22:- 0600 UTC, 10317 kHz and 0620 UTC, 11117 kHz, same frequencies as in May but much stronger signals on both this morning, “312 312 312 000”.

19-June-22:- 0600 UTC, 10317 kHz and 0620 UTC, 11117 kHz, both very weak, just able to hear the “000” of the “no message” routine.

Saturday + Thursday Schedule, 1410 UTC Start:-

12-May-22, Thursday:- 1410 UTC, 15836 kHz, “157 157 157 1” for a full message, DK/GC
“3696 65” x 2, good signal.
1430 UTC, 14536 kHz, very weak, only became just audible around 1433 UTC.
1450 UTC, 13536 kHz, weak, interference from rapidly swept carrier.

14-May-22, Saturday:- 1410 UTC, 15836 kHz, “157” and “3696 65” again, good signal.
1430 UTC, 14536 kHz, weak but clear.
1450 UTC, 13536 kHz, stronger with weak swept carrier interference.

26-May-22, Thursday:- 1410 UTC, 15836 kHz, “157 157 157 1”, message, DK/GC “214 77” x 2, signal strength up and down.
1430 UTC, 14536 kHz, weak.
1450 UTC, 13536 kHz, very weak, unreadable, swept carrier interference.

28-May-22, Saturday:- 1410 UTC, 15836 kHz, “157” and “214 77” again, S5 to S6, became weaker.
1430 UTC, 14536 kHz, S5 with deep fading.
1450 UTC, 13536 kHz, weak but clear, the sweeper much weaker than usual.

4-June-22, Saturday:- Missed 1410 UTC sending on predicted frequency 13417 kHz.
1430 UTC, 14717 kHz, “603 603 603 000”.

9-June-22, Thursday:- 1410 UTC, 13417 kHz, “603 603 603 1”, DK/GC “1195 84”, very strong FSK/RTTY signal close enough to be a nuisance.
1430 UTC, 14717 kHz, S4 to S5.
1450 UTC, 15817 kHz, strong.

11-June-22, Saturday:- 1410 UTC, 13417 kHz, “603” and “1195 94” again with FSK interference.
1430 UTC, 14717 kHz, signal strength up and down.
1450 UTC, 15817 kHz, strong.

16-June-22, Thursday:- 1410 UTC, 13417 kHz, very weak, unreadable under FSK interference.
1430 UTC, 14717 kHz, much better, “603 603 603 000”.

18-June-22, Saturday:- 1410 UTC, 13417 kHz, with the usual interference and 1430 UTC, 14717 kHz, good signal, “603 603 603 000”.

25-June-22, Saturday:- 1410 UTC, 13417 kHz, “603 603 603 1” for a message, DK/GC “2675 35” x 2, competing well with the RTTY interference.
1430 UTC, 14717 kHz, signal strength up and down.
1450 UTC, 15817 kHz, strongest of the three transmissions.

Others’ Logs, reflecting PoSW’s analysis:

Sunday

May 2022

0600z	10317kHz	0620z	11117kHz	0640z	12217kHz	
22/05	312 000					Weak
29/05	312 000					Weak
June 2022						
0600z	10317kHz	0620z	11117kHz	0640z	12217kHz	
05/06	312 000					0600z Weak, 0620z Fair
12/06	312 000					Weak

Sunday/Wednesday

May 2022

1700z	13394kHz	1720z	12134kHz	1740z	10934kHz	
04/05	919 1 507 49 72726 ... 60163 000 000				[1720z only]	Fair
08/05	919 1 507 49 72726 ... 60163 000 000				[1720z Strong]	Weak
11/05	NRH					M8/PLdn
15/05	NRH					M8/PLdn
18/05	NRH					M8/PLdn
25/05	NRH					
29/05	NRH					

June 2022

1700z	13368kHz	1720z	11568kHz	1740z	10468kHz
01/06	NRH				
05/06	NRH				

Tuesday/Friday

May 2022

0700z	16246kHz	0720z	18446kHz	0740z	19246kHz	
03/05	242 1 2493 112 35759 ... 21488 000 000					Weak [0700/0720z best]
10/05	242 000					Weak
13/05	242 000				[0720z Dutch SDR]	Weak

17/05	242 1 4409 87 32501 ... 34596 000 000	[0700z M8 QTH]	Weak, Dutch SDR
20/05	242 1 4409 87 32501 ... 34596 000 000	[0710z DutchSDR +QRM]	Weak
24/05	242 000		Weak
27/05	242 000		Weak
31/05	242 1 7082 121 77466 ... 22301 ATTENTION single repeat OUT		Weak DutchSDR

June 2022

0700z	16331kHz	0720z	18731kHz	0740z	19331kHz	
03/06	373 1 7082 121 77466 ... 22301 000 000				[0700z M8 QTH Rx]	Weak Dutch SDR
07/06	373 000				[0720z Dutch SDR]	Weak
10/06	373 000				[0720z Dutch SDR]	Weak
28/06	373 000				[0720z Dutch SDR]	Weak

Thursday/Saturday

May 2022

1410z	15836kHz	1430z	14636kHz	1450z	13536kHz	
12/05	157 1 3696 65 51702 ... 66480 000 000				[1410z Fair, 1430z Dutch SDR]	Weak
14/05	157 1 3696 65 51702 ... 66480 000 000				[1430z Weak]	Fair
19/05	157 000					Weak
26/05	157 1 214 77 74810 ... 27658 000 000				[1410z Fair, 1450z DutchSDR]	Weak
28/05	157 1 214 77 74810 ... 27658 000 000					Weak

June 2022

1410z	13417kHz	1430z	14717kHz	1450z	15817kHz	
02/06	603 000					Weak
04/06	603 000				[1410z TTYQRM3]	Weak
11/06	603 1 1195 84 64051 ... 09028 000 000				[1410z QRM]	Weak
23/06	603 1 2675 35 65178 37469 ..					Gert THU
25/06	603 1		46560 000 000		[1410z QRM3/4, 1450z NRH]	Weak, mainly unworkable
30/06	603 000				[1410z TTYQRM4]	Fair

Saturday

May 2022

1300z	12176kHz	1320z	11576kHz	1340z	10276kHz	
07/05	152 000					Weak
14/05	152 000					Fair
21/05	152 000					Weak
28/05	152 000					Weak

June 2022

04/06	152 000					1300z Strong, 1320z Fair
11/06	152 000					Weak
25/06	152 000					Weak

E07a

Wednesday

May 2022

2000z	12166kHz	2020z	10766kHz	2040z	9266kHz
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NRH

June 2022

NRH

Thursday

May 2022

0430z	7933kHz	0450z	9133kHz	0510z	10233kHz
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NRH

June 2022

NRH

Friday

May 2022

1510z	12182kHz	1530z	11082kHz	1550z	10182kHz
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NRH

June 2022

NRH

Saturday

May 2022

0800z	12177kHz	0820z	13477kHz	0840z	14877kHz
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NRH

June 2022

0800z	13373kHz	0820z	14373kHz	0840z	14873kHz
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NRH

E11&E11a log May/June

4783kHz	1910z	04/05 [392/36 27293.....etc]	HfD	WED
	1910z	11/05 [394/00] Out 1913z S5+QRM	Malc	WED
	1910z	14/05 [395/00] Out 1913z S7+QRM	Malc, Gary H	SAT
	1910z	18/05 [393/00] Out 1913z S6	Malc	WED
	1910z	21/05 [395/00] Out 1913z S6	Malc	SAT
	1910z	25/05 [396/00] Out1913z S6	Malc	WED
	1910z	01/06 [399/00] Out 1914z S7	Malc	WED
	1910z	04/06 [399/00] Out 1913z S5	Malc	SAT
	1910z	08/06 [391/00] Out 1913z S5	Malc	WED
	1910z	11/06 [399/00] Out 1913z S5	Malc	SAT
	1910z	29/06 [394/00] Out 1913z S4	Malc	WED
4909kHz	0820z	05/05 [43?/36 82561 59384 56258 88587 52911 92202 92095 53239.....20316 10299]	RNGB	THU
	0820z	12/05 [432/00] Out 0823z S2 (Dutch SDR)	Malc, RNGB, HfD	THU
	0820z	20/05 [434/00] Out 0823z S4 (Finnish SDR)	Malc	FRI
	0820z	26/05 [439/00] Out 0823z S2 (Dutch SDR)	Malc, Thomas	THU
	0820z	10/06 [436/00] Out 0823z S5 (Finnish SDR)	Malc	FRI
5082kHz	1530z	01/05 [369/00]	HfD	SUN
	1530z	07/05 [366/00]	Gary H	SAT
	1530z	08/05 [366/00] Out 1533z S3 (Dutch SDR)	Malc	SUN
	1530z	14/05 [369/00] Out 1533z S3 (Dutch SDR)	Malc	SAT

	1530z	15/05 [365/00] Out 1533z S2	(Dutch SDR)		Malc	SUN
	1530z	21/05 [366/39 17394.....95863] Out 1541z S3	(Dutch SDR)		Malc	SAT
	1530z	22/05 [366/39 17394....etc] Repeat of Saturday			Malc	SUN
	1530z	28/05 [364/00] Out 1533z S3	(Dutch SDR)		Malc, Gary H	SAT
	1530z	29/05 [369/00] Out 1533z S2			Malc	SUN
	1530z	04/06 [369/00] Out 1533z S2			Malc	SAT
	1530z	05/06 [367/00] Out 1533z S2			Malc	SUN
	1530z	11/06 [366/00] Out 1533z S2	(Dutch SDR)		Malc	SAT
	1530z	12/06 [363/00] Out 1533z S3	(Dutch SDR)		Malc	SUN
	1530z	25/06 [363/00]			Gary H	SAT
	1530z	26/06 [367/00]			Gary H	SUN
	1530z	26/06 [367/00] Out 1533z S3	(Dutch SDR)		Malc	SUN
5231kHz	1605z	03/05 [235/00] Out 1608z S4	(Dutch SDR)		Malc, HfD	TUE
	1605z	08/05 [231/00] Out 1608z S2			Malc	SUN
	1605z	10/05 [232/40 99325..... 86585] Out 1616z S3	(Dutch SDR)		Malc	TUE
	1605z	15/05 [232/40 99325...etc] Repeat of Tuesday			Malc	SUN
	1605z	17/05 [235/00] Out 1608z S3	(Dutch SDR)		Malc	TUE
	1605z	22/05 [232/00] Out 1608z S2	(Dutch SDR)		Malc	SUN
	1605z	24/05 [236/00] Out 1608z S2	(Dutch SDR)		Malc	TUE
	1605z	31/05 [235/00] Out 1608z S2	(Dutch SDR)		Malc	TUE
	1605z	05/06 [236/00] Out 1608z S3	(Dutch SDR)		Malc	SUN
	1605z	12/06 [238/00] Out 1608z S3	(Dutch SDR)		Malc	SUN
	1605z	26/06 [238/00] Out 1608z S3	(Dutch SDR)		Malc	SUN
5409kHz	2000z	01/05 [520/00]			HfD	SUN
	2000z	08/05 [522/33 60730.....34401] Out 2010z S6			Malc	SUN
	2000z	12/05 [524/00] Out 2003z S5			Malc	THU
	2000z	15/05 [524/00] Out 2003z S2			Malc	SUN
	2000z	19/05 [521/00] Out 2003z S5			Malc	THU
	2000z	22/05 [522/00] Out 2003z S3			Malc	SUN
	2000z	26/05 [522/00] Out 2003z S6			Malc	THU
	2000z	29/05 [524/00] Out 2203z S5			Malc	SUN
	2000z	02/06 [520/31 03133.....04395] Out 2010z S5			Malc	THU
	2000z	05/06 [520/31 03133....etc] Repeat of Thursday			Malc	SUN
	2000z	09/06 [521/00] Out 2003z S4			Malc	THU
	2000z	12/06 [524/00] Out 2003z S4			Malc	SUN
	2000z	26/06 [525/00] Out 2003z S5+QRM			Malc	SUN
	2000z	30/06 [528/00] Out 2003z S7			Malc, Gary H	THU
5737kHz	1300z	02/05 [313/00] Out 1303z S3	(Dutch SDR)		Malc, HfD	MON
	1300z	09/05 [316/00] Out 1303z S2	(Dutch SDR)		Malc	MON
	1300z	12/05 [315/00] Out 1303z S2	(Dutch SDR)		Malc	THU
	1300z	16/05 [313/00] Out 1303z S3	(Polish SDR)		Malc	MON
	1300z	19/05 [310/00] Out 1303z S2+QRM	(Dutch SDR)		Malc	THU
	1300z	26/05 [313/35 88975.....32940] Out 1310z S5	(Dutch SDR)		Malc	THU
	1300z	30/05 [315/00] Out 1303z S3	(Dutch SDR)		Malc	MON
	1300z	02/06 [316/00] Out 1303z S3	(Dutch SDR)		Malc	THU
	1300z	09/06 [311/00] Out 1303z S2	(Dutch SDR)		Malc	THU
	1300z	13/06 [316/00] Out 1303z S2	(Dutch SDR)		Malc	MON
	1300z	27/06 [310/00] Out 1303z S2	(Dutch SDR)		Malc	MON
	1300z	30/06 [319/00] Out 1303z S3	(Dutch SDR)		Malc	THU
6304kHz	1205z	03/05 [463/00] Out 1208z S2	(Dutch SDR)		Malc, HfD	TUE
	1205z	10/05 [463/34 93409.....43843] Out 1215z S7	(Finnish SDR)		Malc	TUE
	1205z	11/05 [463/34 93409....etc] Repeat of Tuesday			Malc	WED
	1205z	17/05 [469/00] Out 1208z S5	(Polish SDR)		Malc	TUE
	1205z	18/05 [466/00] Out 1208z S2	(Dutch SDR)		Malc	WED
	1205z	24/05 [462/00] Out 1208z S4	(Finnish SDR)		Malc	TUE
	1205z	25/05 [461/00] Out 1208z S2	(Dutch SDR)		Malc	WED
	1205z	31/05 [464/00] Out 1208z S4	(Dutch SDR)		Malc	TUE
	1205z	07/06 [462/00] Out 1208z S3	(Dutch SDR)		Malc	TUE
	1205z	28/06 [462/00] Out 1208z S2	(Dutch SDR)		Malc	TUE
	1205z	29/06 [464/00] Out 1208z S3	(Dutch SDR)		Malc	WED
6923kHz	0930z	04/05 [276/00]			RNGB, HfD	WED
	0930z	11/05 [275/00] Out 0933z S2			Malc	WED
	0930z	18/05 [270/00] Out 0933z S4	(Dutch SDR)		Malc	WED
	0930z	19/05 [277/00] Out 0933z S2			Malc	THU
	0930z	25/05 [273/37 92340.....90346] Out 0940z S3	(Dutch SDR)		Malc	WED
	0930z	26/05 [273/37 92340....etc] Repeat of Wednesday			Malc	THU

	0930z	02/06 [275/00] Out 0933z S2		Malc	THU
	0930z	08/06 [279/00] Out 0933z S4 (Dutch SDR)		Malc	WED
	0930z	09/06 [271/00] Out 0933z S2		Malc, Thomas	THU
	0930z	29/06 [273/00] Out 0933z S2		Malc	WED
	0930z	30/06 [279/00] Out 0933z S4 (Dutch SDR)		Malc	THU
7377kHz	0700z	01/05 [497/00]		HfD	SUN
	0700z	14/05 [497/00] Out 0703z S3 (Dutch SDR)		Malc	SAT
	0700z	15/05 [491/00] Out 0703z S2		Malc	SUN
	0700z	21/05 [491/40 40527.....56197] Out 0711z S2		Malc	SAT
	0700z	22/05 [491/40 40527.....etc] Repeat of Saturday		Malc	SUN
	0700z	28/05 [495/00] Out 0703z S2		Malc	SAT
	0700z	29/05 [490/00] Out 0703z S3		Malc	SUN
	0700z	11/06 [490/00] Out 0703z S2		Malc	SAT
	0700z	12/06 [496/00] Out 0703z S4 (Dutch SDR)		Malc	SUN
	0700z	26/06 [491/00] Out 0703z S2		Malc	SUN
7469kHz	0450z	09/05 [411/00]		HfD	MON
	0450z	13/06 [412/00]		HfD	MON
7600kHz	1900z	02/05 [643/31 08297 79384 17778 45882 02039 81034 15919.....68553 05261] Out 1909z		Gary H, Malc	MON
	1900z	09/05 [648/00] Out 1903z S5		Malc, HfD	MON
	1900z	12/05 [640/00] Out 1903z S5		Malc	THU
	1900z	16/05 [648/00] Out 1903z S4		Malc	MON
	1900z	19/05 [647/00] Out 1903z S3		Malc	THU
	1900z	23/05 [648/00] Out 1903z S4		Malc	MON
	1900z	26/05 [644/00] Out 1903z S3		Malc	THU
	1900z	30/05 [649/00] Out 1903z S3		Malc	MON
	1900z	02/06 [647/00] Out 1903z S5		Malc	THU
	1900z	06/06 [644/36 63925.....46036] Out 1911z S3		Malc	MON
	1900z	09/06 [644/36 63925.....etc] Repeat of Monday		Malc	THU
	1900z	13/06 [643/00] Out 1903z S3		Malc	MON
	1900z	27/06 [646/00] Out 1903z S3		Malc	MON
	1900z	30/06 [649/00] Out 1903z S4		Malc	THU
7863kHz	1715z	04/05 [975/00]		HfD	WED
	1715z	11/05 [974/00] Out 1718z S6		Malc	WED
	1715z	13/05 [976/00] Out 1718z S4		Malc	FRI
	1715z	18/05 [970/39 55266.....77314] Out 1726z S3		Malc	WED
	1715z	25/05 [974/00] Out 1718z S4		Malc	WED
	1715z	27/05 [977/00] Out 1718z S3		Malc	FRI
	1715z	01/06 [972/00] Out 1718z S5		Malc	WED
	1715z	03/06 [974/00] Out 1718z S4		Malc	FRI
	1715z	08/06 [972/31 88352.....93604] Out 1725z S3		Malc	WED
	1715z	10/06 [972/31 88352.....etc] Repeat of Wednesday		Malc	FRI
	1715z	29/06 [974/00] Out 1718z S2		Malc	WED
8088kHz	1730z	12/05 [413/00] Out 1733z S5		Mal, HfD	THU
	1730z	26/05 [416/00] Out 1733z S3		Malc	THU
	1730z	02/06 [416/00] Out 1733z S3		Malc	THU
	1730z	09/06 [410/00] Out 1733z S2 + QRM 1.5kHz low		Malc	THU
	1730z	30/06 [414/31 54790.....05795] Out 1739z S4		Malc	THU
8091kHz	0645z	03/05 [514/00] Out 0648z S2		Malc, HfD	TUE
	0640z	10/05 [511/00] Out 0643z S2		Malc	TUE
	0645z	12/05 [517/00] Out 0648z S3		Malc	THU
	0645z	17/05 [511/00] Out 0648z S2		Malc, RNGB	TUE
	0645z	19/05 [519/00] Out 0648z S3		Malc	THU
	0645z	24/05 [515/40 13388 45408 16442 19644 39622 21975 77467.....68348 45196] Out 0656z S3		Ary, Malc	TUE
	0645z	26/05 [515/40 13388.....etc] Repeat of Tuesday		Malc	THU
	0645z	31/05 [510/00] Out 0648z S3		Malc	TUE
	0645z	02/06 [519/00] Out 0648z S3		Malc	THU
	0645z	07/06 [519/00] Out 0648z S2		Malc	TUE
	0640z	09/06 [514/00] Out 0643z S3 + QRM		Malc	THU
	0645z	28/06 [519/00] Out 0748z S2		Malc	TUE
	0645z	30/06 [519/00] Out 0648z S2		Malc, RNGB	THU
8180kHz	0700z	17/05 [574/00] Out 0703z S2		Malc	TUE

8545kHz	1045z	02/05 [697/00] Out 1048z S2		Malc, HfD	MON
	1045z	09/05 [698/31 50793.....18881] Out 1054z S3	(Dutch SDR)	Malc	MON
	1045z	11/05 [698/31 50793....etc] Repeat of Monday		Malc	WED
	1045z	16/05 [693/00] Out 1048z S2		Malc	MON
	1045z	18/05 [694/00] Out 1048z S2		Malc	WED
	1045z	25/05 [697/00] Out 1048z S2		Malc	WED
	1045z	30/05 [698/00] Out 1048z S2		Malc	MON
	1045z	06/06 [692/00] Out 1048z S2		Malc	MON
	1045z	08/06 [690/00] Out 1048z S2		Malc	WED
	1045z	13/06 [693/00] Out 1048z S2		Malc	MON
	1045z	27/06 [694/00] Out 1048z S2		Malc	MON
	1045z	29/06 [593/00] Out 1048z S2		Malc	WED
8680kHz	0700z	03/05 [570/38 75829 45240 32184 84192 69543 05717 70927.....31975 29620] Out 0710z S2		RNGB, Malc, HfD	TUE
	0700z	10/05 [577/00] Out 0703z S2		Malc	TUE
	0700z	13/05 [576/00] Out 0703z S4		Malc	FRI
	0700z	17/05 [574/00]		RNGB	TUE
	0700z	20/05 [579/00] Out 0703z S3		Malc	FRI
	0700z	24/05 [573/00] Out 0703z S3		Malc, RNGB	TUE
	0700z	27/05 [573/00] Out 0703z S3		Malc	FRI
	0700z	31/05 [570/00] Out 0703z S4		Malc	TUE
	0700z	03/06 [570/00] Out 0703z S3		Malc	FRI
	0700z	07/06 [579/00] Out 0703z S4		Malc, RNGB	TUE
	0700z	10/06 [570/00] Out 0703z S3		Malc	FRI
	0700z	28/06 [677/00] Out 0703z S2		Malc	TUE
9052kHz	0900z	02/05 [535/00]		Ary, HfD	MON
	0900z	09/05 [532/36 92908.....53399] Out 0911z S4		Malc	MON
	0900z	11/05 [532/36 92908....etc] Repeat of Monday		Malc	WED
	0900z	16/05 [537/00] Out 0903z S2		Malc	MON
	0900z	18/05 [536/00] Out 0903z S2		Malc	WED
	0900z	23/05 [532/00] Out 0903z S2		Malc	MON
	0900z	25/05 [536/00] Out 0903z S3		Malc	WED
	0900z	30/05 [538/00] Out 0903z S3		Malc	MON
	0900z	01/06 [537/00] Out 0903z S5		Malc	WED
	0900z	06/06 [535/00] Out 0903z S3		Malc	MON
	0900z	08/06 [533/00] Out 0903z S3		Malc	WED
	0900z	13/06 [536/39 20936.....11396] Out 0911z S2		Malc	MON
	0900z	20/06 [535/00]		RNGB	MON
	0900z	27/06 [530/00] Out 0903z S3		Malc	MON
	0900z	29/06 [536/00] Out 0903z S4		Malc	WED
9150kHz	0600z	01/05 [353/00]		HfD	SUN
	0600z	06/05 [352/00]		RNGB	FRI
	0600z	22/05 [352/00] Out 0603z S3		Malc	SUN
	0600z	05/06 [359/00] Out 0603z S3		Malc	SUN
9610kHz	1910z	01/05 [616/00]		HfD	SUN
	0745z	02/05 [268/00] Out 0748z S3		Malc, HfD	MON
	1910z	08/05 [617/00] Out 1913z S5		Malc	SUN
	0745z	09/05 [266/00] Out 0748z S3		Malc	MON
	1910z	13/05 [614/31 80586.....02514] Out 1919z S4		Malc	FRI
	1910z	15/05 [614/31 80586....etc] Repeat of Friday		Malc	SUN
	0745z	16/05 [267/00]		RNGB, Malc	MON
	1910z	20/05 [618/00] Out 1913z S4		Malc	FRI
	1910z	22/05 [616/00] Out 1913z S6		Malc	SUN
	0745z	23/05 [261/40 61976..... 91466] Out 0756z S4		Malc	MON
	1910z	27/05 [618/00] Out 1913z S6		Malc	FRI
	1910z	29/05 [618/00] Out 1913z S2		Malc	SUN
	0745z	30/05 [261/00] Out 0748z S4		Malc	MON
	1910z	03/06 [616/00] Out 1913z S5		Malc	FRI
	1910z	05/06 [613/00] Out 1913z S3		Malc	SUN
	0745z	06/06 [266/00] Out 0748z S4		Malc	MON
	1910z	10/06 [610/00] Out 1913z S6		Malc	FRI
	1910z	12/06 [618/00] Out 1913z S4		Malc	SUN
	0745z	13/06 [266/00] Out 0748z S3		Malc	MON
	1910z	26/06 [617/00] Out 1913z S7		Malc	SUN
	0745z	27/06 [268/33 54509.....97196] Out 0754z S3		Malc	MON

10356kHz	1530z	05/05 [262/00]	Gary H	THU
	1530z	12/05 [261/00] Out 1533z S3	Malc, HfD	THU
	1530z	19/05 [266/00]	Gary H, Malc	THU
	1530z	26/05 [261/40 61976 27885 55738 54747 44020 18234 05580.....38410 91466] Out 1541z	Gary H, Malc	THU
	1530z	02/06 [269/00] Out 1533z S3	Malc	THU
	1530z	16/06 [260/00]	Gary H	THU
	1530z	23/06 [260/00]	Gary H	THU
	1530z	30/06 [268/33 54509.....97196] Out 1539z S4	Malc	THU
10429kHz	0715z	03/05 [630/00] Out 0718z S2	Malc, RNGB, HfD	TUE
	0715z	10/05 [631/00] Out 0718z S3	Malc, RNGB	TUE
	0715z	13/05 [637/00] Out 0718z S3	Malc	FRI
	0715z	17/05 [631/40 22090.....14031] Out 0726z S4	Malc	TUE
	0715z	20/05 [631/40 22090.....etc] Repeat of Tuesday	Malc	FRI
	0715z	24/05 [634/00] Out 0718z S4	Malc	TUE
	0715z	27/05 [630/00] Out 0718z S4	Malc	FRI
	0715z	31/05 [637/00] Out 0718z S3	Malc	TUE
	0715z	03/06 [635/00] Out 0718z S3	Malc	FRI
	0715z	07/06 [631/36 30721.....75350] Out 0726z S3	Malc	TUE
	0715z	10/06 [631/36 30721.....etc] Repeat of Tuesday	Malc	FRI
	0715z	24/06 [636/00]	RNGB	FRI
12153kHz	1000z	03/05 [305/39 44723.....21583] Out 1011z S4	Malc, HfD	TUE
	1000z	10/05 [306/00] Out 1003z S3	Malc	TUE
	1000z	13/05 [305/00] Out 1003z S3	Malc	FRI
	1000z	17/05 [306/00] Out 1003z S3	Malc	TUE
	1000z	20/05 [300/00] Out 1003z S3	Malc	FRI
	1000z	24/05 [300/00] Out 1003z S4	Malc	TUE
	1000z	27/05 [309/00] Out 1003z S4	Malc	FRI
	1000z	31/05 [307/00] Out 1003z S4	Malc	TUE
	1000z	03/06 [300/00] Out 1003z S3	Malc	FRI
	1000z	07/06 [305/37 78187 43627 58964 34583 57914 19755 04840.....64920 58614] Out 1011z S3	Malc	TUE
	1000z	10/06 [305/37 78187.....etc] Repeat of Tuesday	Thomas	FRI
	1000z	28/06 [300/00] Out 1003z S5	Malc	TUE
12229kHz	1815z	01/05 [927/00]	HfD	SUN
	1815z	08/05 [926/00] Out 1818z S6	Malc	SUN
	1815z	13/05 [921/00] Out 1818z S2	Malc	FRI
	1815z	15/05 [921/00] Out 1818z S5	Malc	SUN
	1815z	20/05 [922/33 98849.....12905] Out 1825z S4	Malc	FRI
	1815z	22/05 [922/33 98849.....etc] Repeat of Friday	Malc	SUN
	1815z	27/05 [924/00] Out 1818z S5	Malc	FRI
	1815z	29/05 [922/00] Out 1818z S2	Malc	SUN
	1815z	03/06 [925/33 20430.....28924] Out 1825z S5	Malc	FRI
	1815z	05/06 [925/33 20430.....etc]	Malc	SUN
	1815z	10/06 [929/00] Out 1818z S4	Malc	FRI
	1815z	12/06 [925/00] Out 1818z S4	Malc	SUN
	1815z	26/06 [929/00] Out 1818z S4	Malc	SUN
12815kHz	0845z	02/05 [718/00] Out 0838z S2	Malc, HfD	MON
	0845z	09/05 [710/00] Out 0848z S3	Malc	MON
	0845z	11/05 [713/00] Out 0848z S3	Malc	WED
	0845z	16/05 [710/00] Out 0848z S3	Malc	MON
	0845z	18/05 [719/00] Out 0848z S2	Malc	WED
	0845z	23/05 [714/32 17410.....00141] Out 0855z S2	Malc	MON
	0845z	25/05 [714/32 17410.....etc] Repeat of Monday	Malc	WED
	0845z	30/05 [716/00] Out 0848z S2	Malc	MON
	0845z	01/06 [718/00] Out 0848z S3	Malc	WED
	0845z	06/06 [719/00] Out 0848z S3	Malc	MON
	0845z	08/06 [713/00] Out 0848z S3	Malc	WED
	0845z	20/06 [718/00]	RNGB	MON
	0845z	27/06 [714/32 68300.....39019] Out 0854z S3	Malc	MON
	0845z	29/06 [714/32 68300.....etc] Repeat of Monday	Malc	WED
12984kHz	1430z	03/05 [914/31 83675.....04205] Out 1440z S3	Malc, HfD	TUE
	1430z	10/05 [917/00] Out 1433z S3	Malc	TUE
	1430z	14/05 [918/00] Out 1433z S3	Malc	SAT
	1430z	17/05 [917/00] Out 1433z S3	Malc	TUE
	1430z	21/05 [914/00] Out 1433z S3	Malc, Thomas	SAT
	1430z	24/05 [915/00] Out 1433z S5	Malc, Thomas	TUE
	1430z	28/05 [912/00] Out 1433z S3	Malc	SAT

1430z	31/05 [910/00] Out 1433z S2	Malc	TUE
1430z	04/06 [917/00] Out 1433z S3	Malc	SAT
1430z	07/06 [917/00] Out 1433z S3	Malc	TUE
1430z	11/06 [912/00] Out 1433z S3	Malc, Gary H	SAT
1430z	28/06 [911/00] Out 1433z S3	Malc, Gary H	TUE
14410kHz 1745z	01/05 [245/00]	HfD	SUN
1745z	02/05 [246/00] Out 1748z S9	Malc	MON
1745z	08/05 [246/00] Out 1748z S6	Malc	SUN
1745z	09/05 [246/38 40701.....88503] Out 1756z S6	Malc	MON
1745z	15/05 [246/38 40701.....etc] Repeat of Monday	Malc	SUN
1745z	16/05 [248/00] Out 1748z S6	Malc	MON
1745z	22/05 [249/00] Out 1748z S4	Malc	SUN
1745z	23/05 [242/00] Out 1748z S6	Malc	MON
1745z	29/05 [245/00] Out 1748z S2+QRM	Malc	SUN
1745z	30/05 [242/00] Out 1748z S3+QRM	Malc	MON
1745z	05/06 [249/00] Out 1748z S5	Malc	SUN
1745z	06/06 [247/37 44061.....13780] Out 1756z S3+QRM	Malc	MON
1745z	12/06 [247/37 44061.....etc] Repeat of Monday	Malc	SUN
1745z	26/06 [247/00] Out 1748z S5	Malc	SUN
1745z	27/06 [249/00] Out 1748z S4+QRM	Malc	MON
14575kHz 0315z	04/05 [256/00]	HfD	WED
1645z	10/05 [330/37 33870.....etc]	HfD	TUE
1645z	12/05 [330/37 33870.....81597] Out 1656z S6	Malc	THU
1645z	17/05 [331/00] Out 1648z S3	Malc	TUE
1645z	24/05 [335/00] Out 1648z S4	Malc	TUE
1645z	26/05 [338/00] Out 1648z S2	Malc	THU
1645z	31/05 [335/00] Out 1648z S4	Malc	TUE
1645z	02/06 [337/00] Out 1648z S3	Malc	THU
1645z	07/06 [333/36 30407.....79401] Out 1656z S4 QSB2	Malc	TUE
0315z	15/06 [258/00]	HfD	WED
14940kHz 0745z	03/05 [228/00]	RNGB, HfD	TUE
0745z	10/05 [225/00] Out 0748z S3	Malc	TUE
0745z	12/05 [228/00] Out 0748z S4	Malc, RNGB	THU
0745z	17/05 [225/00] Out 0748z S4	Malc	TUE
0745z	24/05 [227/00] Out 0748z S7	Malc	TUE
0745z	26/05 [223/00] Out 0748z S6	Malc, Thomas, RNGB	THU
0745z	31/05 [224/00] Out 0748z S4	Malc	TUE
0745z	02/06 [227/00] Out 0748z S4	Malc, RNGB	THU
0745z	07/06 [228/00] Out 0748z S3	Malc	TUE
0745z	09/06 [224/00] Out 0748z S5	Malc	THU
0745z	28/06 [224/00] Out 0748z S5 QSB3	Malc	TUE
0745z	30/06 [227/00] Out 0748z S3	Malc	THU
14972kHz 0845z	05/05 [151/37 11518 22876 52921 40682 65933 21487 34686 96103.....30521 35213]	Ary, HfD	THU
0845z	10/05 [155/00] Out 0848z S5	Malc	TUE
0845z	12/05 [152/00] Out 0848z S5	Malc	THU
0845z	17/05 [151/00] Out 0848z S3	Malc	TUE
0845z	19/05 [154/00] Out 0848z S7	Malc	THU
0845z	24/05 [156/00] Out 0848z S3	Malc	TUE
0845z	26/05 [150/00] Out 0848z S6	Malc, Thomas	THU
0845z	31/05 [156/00] Out 0848z S5	Malc	TUE
0845z	02/06 [152/00] Out 0848z S4	Malc, Thomas	THU
0845z	07/06 [157/00] Out 0848z S3	Malc	TUE
0845z	09/06 [156/00] Out 0848z S3	Malc, Thomas	THU
0845z	30/06 [154/28 ATTENTION then failed at 0846z]	Malc	THU
15720kHz 0830z	02/05 [184/00]	Ary, Malc	MON
0745z	04/05 [348/00]	HfD	WED
0830z	06/05 [180/00]	HfD	FRI
0830z	09/05 [182/31 117147.....90162] Out 0839z S2	Malc	MON
0745z	11/05 [348/00] Out 0748z S5	Malc, RNGB	WED
0745z	13/05 [344/00] Out 0748z S4	Malc, RNGB	FRI
0830z	16/05 [184/00] Out 0833z S4	Malc	MON
0745z	18/05 [347/40 87714.....93287] Out 0756z S3	Malc	WED
0745z	20/05 [347/40 87714.....etc] Repeat of Wednesday	Malc	FRI
0830z	20/05 [184/00] Out 0848z S3	Malc	FRI
0830z	23/05 [180/00] Out 0833z S4	Malc	MON
0745z	25/05 [344/00] Out 0748z S5	Malc	WED
0745z	27/05 [340/00] Out 0748z S4	Malc	FRI

	0830z	27/05 [185/00] Out 0833z S4	Malc	FRI
	0830z	30/05 [189/00] Out 0833z S2	Malc	MON
	0745z	01/06 [346/00] Out 0748z S3	Malc	WED
	0745z	03/06 [340/00] Out 0748z S2	Malc, RNGB	FRI
	0830z	06/06 [182/00] Out 0833z S3	Malc	MON
	0745z	08/06 [340/00] Out 0748z S3	Malc	WED
	0745z	10/06 [340/00] Out 0748z S2	Malc	FRI
	0830z	10/06 [180/00] Out 0833z S4	Malc	FRI
	0830z	13/06 [180/00] Out 0833z S3	Malc	MON
	0745z	17/06 [347/00]	RNGB	FRI
	0745z	24/06 [347/38 67384 91291 29034 30279 33613 92063 45970.....61528 58971]	RNGB	FRI
	0830z	24/06 [182/39 15866 64080 66580 33892 91022 36409 92615 43615.....33780 16278]	RNGB	FRI
	0830z	27/06 [189/00] Out 0833z S3	Malc	MON
	0745z	29/06 [343/00] Out 0748z S2	Malc	WED
15800kHz	0640z	04/05 [941/00]	Ary, HfD	WED
	0640z	09/05 [946/26 76975.....34020] Out 0648z S2+QRM	Malc	MON
	0640z	11/05 [941/26 76975....etc] Repeat of Monday	Malc	WED
	0640z	16/05 [945/00] Out 0643z S3	Malc	MON
	0640z	18/05 [942/00] Out 0643z S2	Malc	WED
	0640z	23/05 [949/00] Out 0643z S2	Malc	MON
	0640z	25/05 [944/00] Out 0648z S3	Malc	WED
	0640z	30/05 [949/00] Out 0643z S2	Malc	MON
	0640z	01/06 [946/00] Out 0643z S3+QRM	Malc	WED
	0640z	06/06 [940/22 43766.....67640] 0647z S5	Malc	MON
	0640z	08/06 [940/22 43766...etc] Repeat of Monday	Malc	WED
	0640z	13/06 [944/00] Out 0643z S2	Malc	MON
	0640z	27/06 [942/00] Out 0643z S3	Malc	MON
	0640z	29/06 [944/00] Out 0643z S3	Malc	WED
17378kHz	0820z	03/05 [135/32 18664 72177 26415 58678 10678 88331 15236.....11108 97935] Out 0830z S3	RNGB, Malc, HfD	TUE
	0820z	10/05 [132/00] Out 0823z S2	Malc	TUE
	0820z	11/05 [131/00] Out 0823z S2	Malc	WED
	0820z	17/05 [136/00] Out 0823z S2	Malc, RNGB	TUE
	0820z	18/05 [132/00] Out 0823z S2	Malc	WED
	0820z	24/05 [132/00] Out 0823z S3	Malc, Thomas	TUE
	0820z	25/05 [130/00] Out 0823z S2	Malc	WED
	0820z	31/05 [130/00] Out 0823z S2	Malc	TUE
	0820z	01/06 [136/00] Out 0823z S2	Malc	WED
	0820z	07/06 [136/00] Out 0823z S4	Malc	TUE
	0820z	08/06 [132/00] Out 0823z S3	Malc	WED
	0820z	28/06 [136/00] Out 0823z S3	Malc	TUE
	0820z	29/06 [131/00] Out 0823z S3	Malc	WED
18030kHz	0715z	02/05 [759/00] Out 0718z S2 (Dutch SDR)	Malc, HfD	MON
	0715z	04/05 [755/00]	RNGB	WED
	0715z	11/05 [754/39 88343.....59352] Out 0726z S2	Malc	WED
	0715z	16/05 [751/00] Out 0718z S2	Malc	MON
	0715z	18/05 [754/00] Out 0718z S2	Malc	WED
	0715z	23/05 [750/00] Out 0718z S3	Malc	MON
	0715z	25/05 [755/00] Out 0718z S2	Malc	WED
	0715z	30/05 [754/00] Out 0718z S2 (Dutch SDR)	Malc	MON
	0715z	01/06 [759/00] Out 0718z S2	Malc	WED
	0715z	06/06 [755/00] Out 0718z S3	Malc	MON
	0715z	08/06 [752/00] Out 0718z S4	Malc	WED
	0715z	27/06 [754/00] Out 0718z S2 (Dutch SDR)	Malc	MON
	0715z	29/06 [352/00] Out 0718z S2	Malc	WED

PoSW also logged the E11 transmissions:

Some of the E11 transmissions heard over the past two months, from PoSW, mostly of the “no message” variety, a three-figure group followed by “oblique zero zero” which lasts for just over three minutes ending with, “out”.

4783 kHz:- There is some kind of noise-maker on this frequency, fires up for about three seconds or so several times a minute, very strong.

7-May-22, Sat:- 1910 UTC, “392/36”, message, “Out” just before 1920:30s UTC.

11-May-22, Wed:- 1910 UTC, “394/00”, strong, the interference even stronger.

14-May-22, Sat:- 1910 UTC, “395/00”.

18-May-22, Wed:- 1910 UTC, “393/00”.

25-May-22, Wed:- 1910 UTC, “396/00”.

28-May-22, Sat:- 1910 UTC, “399/00”.

4-June-22, Sat:- 1910 UTC, “399/00”.

8-June-22, Wed:- 1910 UTC, “391/00”.

5409 kHz:- 1-May-22, Sun:- 2000 UTC, “520/00”, strong signal.
 5-May-22, Thur:- 2000 UTC, “522/33”, very strong, “Out” at 2009:53s UTC.
 8-May-22, Sun:- 2000 UTC, “522/33”, as on the 5th.
 12-May-22, Thur:- 2000 UTC, “524/00”, strong.
 15-May-22, Sun:- 2000 UTC, “524/00”.
 19-May-22, Thurs:- 2000 UTC, “521/00”.
 22-May-22, Sun:- 2000 UTC, “522/00”.
 26-May-22, Thu:- 2000 UTC, “522/00”.
 29-May-22, Sun:- 2000 UTC, “524/00”.
 2-June-22, Thu:- 2000 UTC, “522/31”, message, strong, “Out” at 2009:25s UTC.

7600 kHz:- There is a broadcast station on this frequency, always much weaker than E11.
 2-May-22, Mon:- 1900 UTC, “643/31”, good signal, “Out” at 1909:30s.
 5-May-22, Thur:- 1900 UTC, “643/31”, as on Monday.
 12-May-22, Thur:- 1900 UTC, “640/00”.
 16-May-22, Mon:- 1900 UTC, “648/00”.
 26-May-22, Thur:- 1900 UTC, “644/00”.
 30-May-22, Mon:- 1900 UTC, “649/00”.
 2-June-22, Thur:- 1900 UTC, “647/00”.
 6-June-22, Mon:- “644/36”, message, somewhat weaker than usual.
 13-June-22, Mon:- “643/00”.
 20-June-22, Mon:- “648/00”.
 23-June-22, Thur:- “647/00”.

7863 kHz:- 6-May-22, Fri:- 1715 UTC, “978/00”.
 11-May-22, Wed:- 1715 UTC, “974/00”.
 13-May-22, Fri:- 1715 UTC, “976/00”.
 25-May-22, Wed:- 1715 UTC, “974/00”.
 3-June-22, Fri:- 1715 UTC, “974/00”.
 8-June-22, Wed:- 1715 UTC, “972/31”, message.
 10-June-22, Fri:- 1715 UTC, “972/31”, again.
 15-June-22, Wed:- 1715 UTC, “972/00”.

8088 kHz:- 5-May-22, Thur:- 1730 UTC, “414/32”, “Out” at 1739:45s UTC.
 12-May-22, Thur:- 1730 UTC, “413/00”.
 2-June-22, Thur:- 1730 UTC, “416/00”.

9610 kHz:- 20-May-22, Fri:- 1910 UTC, “618/00”.
 22-May-22, Sun:- 1910 UTC, “616/00”, weak signal.
 27-May-22, Fri:- 1910 UTC, “618/00”.
 29-May-22, Sun:- 1910 UTC, “618/00”.
 12-June-22, Sun:- 1910 UTC, “618/00”.

12229 kHz:- 6-May-22, Fri:- 1815 UTC, “925/00”, strong signal.
 8-May-22, Sun:- 1815 UTC, “926/00”.
 20-May-22, Fri:- 1815 UTC “922/33”, message, “Out” before 1825 UTC.
 27-May-22, Fri:- 1815 UTC, “924/00”.
 3-June-22, Fri:- 1815 UTC, “925/33”, message, “Out” 1824:45s approx.
 5-June-22, Sun:- 1815 UTC, “925/33” again, strong signal.
 10-June-22, Fri:- 1815 UTC, “929/00”.

12984 kHz:- 28-May-22, Sat:- 1430 UTC, “912/00”.
 4-June-22, Sat:- 1430 UTC, “917/00”.
 11-June-22, Sat:- 1430 UTC, “912/00”.
 18-June-22, Sat:- 1430 UTC, “918/33”, message, weak signal.

15720 kHz:- 18-May-22, Wed:- 0745 UTC, “347/40”, message, longer than most, “Out” just after 0756 UTC.
 27-May-22, Fri:- 0745 UTC, “340/00”.
 8-June-22, Wed:- 0745 UTC, “340/00”.
 22-June-22, Wed:- 0745 UTC, “347/38”, message, “Out” at approx 0755:45s.

17378 kHz:- 10-May-22, Tue:- 0820 UTC, “132/00”, weak signal.
 18-May-22, Wed:- 0820 UTC, “132/00”, weak.
 25-May-22, Wed:- 0820 UTC, “130/00”, weak.
 7-June-22, Tue:- 0820 UTC, “136/00”.
 8-June-22, Wed:- 0820 UTC, “132/00”.
 14-June-22, Tue:- 0820 UTC, “133/40”, message, “Out” after 0831z.
 21-June-22, Tue:- 0820 UTC, “131/00”.

E17z

May 2022

Thursday

0800z 16780kHz 0810z 12850kHz

NRH

June 2022

NRH

S06

S06 log May 2022

Thursdays (Repeats Friday)		0830z	17475kHz	0930z	14736kHz (frequencies may vary +/- 15kHz)
05/05	'842'	675 30 61452 0638- 42478 04133 63049 59509 20---	85367 85532 323		
12/05	'842'	906 31 57593 82452 25752 90607 68400 88559 88437 23684 06432 14528 57367 65966 32036 18110 78778 17038 25043 84184 78328 80488 39923 42310 15588 90106 82292 08972 65061 53742 62029 71739 05484 906 31 00000]	0840z		
19/05	'842'	571 32 89165 21907 62300 76248 73569 61586 51228 84763 91677 10554 92022 87559 95006 50016 83746 20165 37245 03646 96047 62045 46846 44363 21692 93017 77858 92183 84662 27500 49904 57896 77259 93777 571 32 00000			
26/05	'842'	609 33 39091 81664 98569 04185 67235 29934 68585 52199 69948 21444 39585 93097 97186 37686 52594 74848 78033 45244 21367 45393 23061 26335 78933 54147 75627 54096 47305 69237 41745 60644 72493 21385 53342 609 33 00000			
Fridays (1st & 3rd)		1900z	9912khz	2000z	7916kHz
06/05	'319'	00000			
20/05	'319'	608 47 99208 45645 64628 17285 67741 81864 56744 30023 52848 74046 74725 76174 78779 47148 26654 09489 92580 95187 54801 93283 74006 45014 86553 84415 99357 04078 59222 08548 31074 62530 06960 31469 18337 16612 38283 18245 98778 96988 46168 46949 40269 31606 53978 76149 79435 05936 74341 608 47 00000			
Other transmissions:					
Saturday		1300z	13547kHz	1330z	11128kHz
14/05	'480'	925 43 57923 15689 38290 64137 99288 71561 84703 48826 40681 18838 46338 63102 37871 29829 19860 90023 39302 58963 10418 27984 19101 18485 00621 22894 94543 02359 17202 33903 47724 14863 37428 93523 64082 66656 82322 41345 47287 45244 79990 55125 70335 30175 82115 925 43 00000]	1312z		
21/05	'480'	673 41 37428 93523 64082 66656 82322 41345 47287 45244 79990 55125 53932 84261 81045 15116 11647 59750 38171 67320 81254 14907 93502 03509 36186 95310 79960 07326 52160 18011 51109 63456 71343 84626 12319 77855 15874 69732 20702 50068 21427 56804 48700 673 41 00000			
28/05	'480'	591 42 55663 25581 77890 31175 47907 42842 41314 59321 99407 13073 38872 29052 63405 35848 23128 89060 02032 01790 18411 66539 35769 95824 79412 98651 94441 68080 27822 77305 23843 95883 64722 61188 95389 50048 29275 46166 33523 55941 82452 21222 51973 69014 591 42 00000			
Sunday		0930z	14735kHz	1000z	12207kHz
15/05	'480'	925 43 57923.....etc]	Repeat of Saturday		

S06 log June 2022

Thursdays (Repeats Friday)		0830z	16022kHz	0930z	13935kHz (frequencies may vary +/- 15kHz)
02/06	'842'	157 34 59422.....etc	(Thanks HfD)		
09/06	'842'	960 35 35218 76251 07363 32887 36641 92553 65183 55398 75530 15041 99738 48442 90413 79480 80565 88185 79586 39642 62907 57857 69229 51591 27946 42639 56608 33472 00470 11762 89320 05474 67424 05001 66507 39645 45772 960 35 00000			
23/06	'842'	956 33 53072 29474 81975 67790 82989 16585 12468 ???54 4142? 22374 871?? 21064 16784 27825 80591 34119 84323 48473 34362 71936 000?9 65405 55616 54042 54144 75109 10164 013?? 85741 19104 14367 14506 67146 79297 ???? 95213 04591 956 35 00000 (QSB)			
30/06	'842'	701 38 68706 89384 57162 06010 65090 85043 84141 84231 72342 99553 35736 76394 98929 35479 00921 83106 01582 19903 07260 78009 02595 09686 40997 76967 79495 58557 76223 52654 81764 19451 80315 30496 54283 80533 87826 26899 72225 58360 701 38 00000			
Fridays (1st & 3rd)		1900z	9912khz	2000z	7916kHz
03/06	'319'	00000			

From PoSW, Logs and associated analysis:

First + Third Fridays in the Month Schedule:-

6-May-22:- unable to find a transmission at 1900 UTC, second sending found easily:-
2001 UTC, 7916 kHz, found in progress with, "319 319 319 00000". Frequencies in May of last year were 9465 and 7561 kHz so the first sending is probably in the 9 MHz band.

20-May-22:- 1906 UTC, 9912 kHz, first sending found in progress in "full message" mode, something of a rare event, the last appears to have hit the airwaves on 19-Nov-21, making the usual proviso that not all transmissions have been monitored. Weak signal, difficult copy.
Tuned away to check the 1910z E11 on 9610, returned to S06 just before 1914z in time to hear the "00000" ending.
2000 UTC, 7916 kHz, call "319", DK/GC "608 608 47 47", good signal.

Full message on a Friday means a repeat on Saturday:-

21-May-22, Saturday:- 1900 UTC, 9912 kHz, slightly stronger than 24 hours earlier.
2000 UTC, 7916 kHz, strong.

Moved forwards by one hour in June:-

3-June-22:- 2000 UTC, 9912 kHz, “319 319 319 00000”, weak signal.
2100 UTC, 7916 kHz, much stronger.

17-June-22:- 2000 UTC, 9912 kHz, “319 319 319 00000”, weak but clear.
2100 UTC, 7916 kHz, strong.

Saturday 1300 + 1330 UTC Schedule. Call “480”. Repeated on the Following Day. 0930 + 1000 UTC:-

14-May-22, Saturday:- 1300 UTC, 13547 kHz DK/GC “925 925 43 43, reasonable signal, ended 1312 UTC.
Nothing readable at 1330 UTC on predicted frequency 11128 kHz..

15-May-22, Sunday, 0930 UTC, 14735 kHz, weak, difficult copy. Nothing heard at 1000 UTC on predicted frequency 12207.

21-May-22, Saturday:- 1300 UTC, 13547 kHz, DK/GC “673 673 41 41”, weak signal.
Nothing heard at 1330 UTC.

22-May-22, Sunday:- 0930 UTC, 14735 kHz, weak, clear signal.
1000 UTC, 12207 kHz, very weak, just about able to confirm S06 OM.

28-May-22, Saturday:- 1300 UTC, 13547 kHz, DK/GC “591 591 42 42”, around S6 with fading.
1330 UTC, 11128 kHz, just about detectable.

29-May-22, Sunday:- 0930 UTC, 14735 kHz, weak signal.
1000 UTC, 12207 kHz, second sending much stronger, which is most unusual!
Nothing shown in the prediction list for June and nothing found.

S11a log May/June

5149kHz	0830z	01/05 [378/00]	HfD	SUN
	0830z	15/05 [377/00] Konyetz 0833z S3 (Dutch SDR)	Malc	SUN
	0830z	21/05 [370/00] Konyetz 0833z S3 (Dutch SDR)	Malc	SAT
	0830z	22/05 [371/00] Konyetz 0833z S2	Malc	SUN
	0830z	28/05 [376/34 55007.....51678] Konyetz 0841z S2	Malc	SAT
	0830z	29/05 [376/34 55007...etc] Repeat of Saturday	Malc	SUN
	0830z	04/06 [373/35 21016.....46271] Konyetz 0841z S3	Malc	SAT
	0830z	05/06 [373/35 21016.....etc] Repeat of Saturday	Malc	SUN
	0830z	11/06 [378/00] Konyetz 0833z S2	Malc	SAT
	0830z	12/06 [378/00] Konyetz 0833z S3 (Dutch SDR)	Malc	SUN
	0830z	26/06 [376/00] Konytz 0833z S4 (Dutch SDR)	Malc	SUN
6814kHz	0915z	02/05 [480/00] Konyetz 0918z S2	Malc, HfD	MON
	0915z	09/05 [484/00] Konyetz 0918z S2	Malc	MON
	0915z	16/05 [483/00] Konyetz 0918z S4 (Dutch SDR]	Malc	MON
	0915z	20/05 [434/00] Konyetz 0918z S3	Malc	FRI
	0915z	27/05 [486/30 86701.....01972] Konyetz 0920z S2	Malc	FRI
	0915z	30/05 [480/00] Konyetz 0918z S2	Malc	MON
	0915z	03/06 [481/00] Konyetz 0918z S2	Malc	FRI
	0915z	06/06 [486/00] Konyetz 0918z S2	Malc	MON
	0915z	10/06 [482/00] Konyetz 0918z S2	Malc	FRI
	0915z	13/06 [483/00] Konyetz 0918z S2	Malc	MON
	0915z	20/06 [487/34 41529 21494 45444 46049 29938 06255 31751.....84964 55185]	RNGB	MON
	0915z	27/06 [485/00] Konyetz 0918z S2	Malc	MON
7772khz	1400z	03/05 [425/00]	Ary, Malc	TUE
	1400z	06/05 [421/00]	HfD	FRI
	1400z	13/05 [424/00] Konyetz 1403z S4 (Dutch SDR)	Malc	FRI
	1400z	20/05 [425/00] Konyetz 1403z S4 (Dutch SDR)	Malc	FRI
	1400z	24/05 [425/32 42559 06325 69459 80288 76406 95810.....62679 39124] Konyetz 1411z S3	Thomas, Malc	TUE
	1400z	27/05 [424/32 42559.....39124] Konyetz 1411z S2	Malc	FRI
	1400z	31/05 [429/00] Konyetz 1403z S2	Malc	TUE
	1400z	03/06 [422/00] Konyetz 1403z S3	Malc	FRI
	1400z	07/06 [427/00] Konyetz 1403z S2	Malc	TUE
	1400z	10/06 [427/00] Konyetz 1403z S3	Malc	FRI
	1400z	28/06 [424/00] Konyetz 1403z S2	Malc	TUE

9339kHz	0700z	02/05 [478/00] Konyetz 0703z S2	Malc, HfD	MON
	0700z	09/05 [471/00] Konyetz 0703z S2	Malc	MON
	0700z	12/05 [476/00] Konyetz 0703z S2	Malc	THU
	0700z	16/05 [470/32 97002 60356 26561 89608 35357 38416 74124 87129.....44269 12152]	RNGB, Malc	MON
	0700z	19/05 [470/32 97002....etc] Repeat of Monday	Malc, RNGB	THU
	0700z	23/05 [479/00] Konyetz 0703z S3	Malc	MON
	0700z	26/05 [470/00] Konyetz 0703z S3	Malc	THU
	0700z	30/05 [475/00] Konyetz 0703z S5	Malc	MON
	0700z	02/06 [475/00] Konyetz 0703z S4	Malc	THU
	0700z	06/06 [478/35 20461.....99926] Konyetz 0712z S3	Malc	MON
	0700z	13/06 [477/00] Konyetz 0703z S2	Malc	MON
	0700z	23/06 [472/00]	RNGB	THU
	0700z	27/06 [478/00] Konyetz 0703z S2	Malc	MON
	0700z	30/06 [476/00] Konyetz 0703z S3	Malc, RNGB	THU
12457kHz	1850z	04/05 [280/00]	HfD	WED
	1850z	11/05 [287/31 96859.....86624] Konyetz 1900z S9	Malc	WED
	1850z	14/05 [287/31 96859....etc] Repeat of Wednesday	Malc, Gary H	SAT
	1850z	18/05 [284/00] Konyetz 1853z S5	Malc	WED
	1850z	21/05 [288/00] Konyetz 1853z S9	Malc	SAT
	1850z	25/05 [284/00] Konyetz 1853z S6	Malc	WED
	1850z	01/06 [281/00] Konyetz 1853z S9	Malc	WED
	1850z	04/06 [288/00] Konyetz 1853z S6	Malc	SAT
13537kHz	0510z	02/05 [655/00]	HfD	MON
	0510z	13/06 [656/00]	HfD	MON
15690kHz	0500z	05/05 [389/00]	HfD	THU
	0500z	14/06 [382/00]	HfD	TUE

V07

With thanks from Daniel, DanAR

May 2022

0300z	13521kHz	0320z	12121kHz	0340z	11421kHz	
01/05	514 1 492 124 10812 ... 85539 000 000			0300z via SDR Japan	Weak	
514 514 514 1 492 124 10812 02033 77450 24282 46568 86902 29405 11165 93302 42667 72256 14436 99939 57368 45397 03273 67805 28540 42058 30735 96454 85373 62577 64516 09879 59054 16942 12969 57858 13446 05264 52247 92560 66918 34074 46754 41506 12066 44723 71977 09233 06936 14359 52344 09818 17913 20416 29662 18259 65476 59690 67416 16432 39367 15872 73769 01396 04733 94775 77443 05596 17684 69023 94912 70106 26694 87613 34548 40798 69504 50892 54326 26404 23899 10129 65986 40508 59425 92234 80721 43162 71902 60144 23672 51687 86386 97644 71109 51217 41342 77609 25069 22950 08869 26393 47478 72039 61365 17437 75746 60196 15156 60406 31949 78687 25892 31704 38383 42953 26365 78315 10626 23240 66061 86610 03053 71661 39994 95751 09916 40453 37022 75248 85539 000 000 <i>Courtesy DanAR</i>						
15/05	514 1 737 84 12169 ... 57036 000 000			0300z via SDR Japan	Weak	
514 514 514 1 737 84 12169 35698 07378 11581 19297 16407 71618 67729 94353 13478 10260 29322 56808 49675 30510 26237 39403 13722 92582 51112 81686 49529 55093 69556 27355 93965 02962 04132 80593 69688 32834 85271 49949 45350 34641 86244 35068 49250 62700 73324 03393 17848 04857 69025 33220 62265 84947 12742 44190 93923 84970 46059 35784 40716 69096 09748 44884 07244 95484 66924 93855 09230 87751 93482 92031 09739 28721 29630 96835 04757 84033 82887 70347 09033 95637 68584 27412 21853 66234 88224 38116 96243 15188 57036 000 000 <i>Courtesy DanAR</i>						

29/05	514 1 133 78 01544 ... 83222 000 000	0300z via SDR Japan	Weak, QRM2
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514 514 514 1
133 78
01544 26605 90537 74494 05605
70338 85486 92751 23995 12822
90921 25143 47634 64988 43431
11796 38515 45259 65349 07848
76026 99190 93641 50190 68695
33871 10780 76274 53408 41255
59949 80096 64080 29877 68982
02357 46248 74204 95786 81081
33778 60002 71203 66445 78810
93676 51022 86252 76271 38091
61015 82856 18962 53343 17259
94116 55751 22145 86358 97010
09660 82377 04426 44885 96606
91896 21530 15024 24429 61250
69593 84507 21323 94005 75044
92598 14516 83222 000 000
Courtesy DanAR

June 2022

0300z	13479kHz	0320z	12179kHz	0340z	11479kHz
05/06	414 1 165 100 81068 ... 14558 000 000			0300z via SDR Japan	Weak QRM1

414 414 414 1
165 100
81068 11925 97647 73132 53476
64428 04130 21910 19331 45611
58842 81625 34619 55158 14888
62439 12396 93336 46007 46721
14384 61534 37176 33053 91333
65230 48118 04173 28161 86256
01867 61660 42702 59135 70056
84953 62275 75599 46497 82976
59548 40553 19780 07330 49184
78801 66038 04088 18924 62147
54538 11532 31054 27574 28974
53474 78606 23996 68859 67874
74999 11723 57814 25049 61182
01686 03117 39613 21276 72075
83197 90990 09937 79164 48854
39820 21447 15355 99457 60241
99165 44888 61480 04715 76408
36632 08565 24415 34822 74293
07674 96603 ????? ?????
???78 75539 43385 58524 14558
000 000 *Courtesy DanAR*

12/06	414 1 8615 122 88911 ... 14375 000 000	0300z via SDR Japan	Weak
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414 414 414 1
8615 122
88911 15128 29177 46395 96002
17263 56757 93801 23938 18303
12812 50998 53364 32733 86185
40794 38131 47550 59540 01966
95702 80503 89561 19030 89298
07276 71014 45989 37469 44794
31794 42509 08272 14849 18736
73475 54171 53113 91329 66883
57650 44623 40871 13279 49304
30836 01625 37206 57634 24689
25742 05809 70196 68597 43076
74981 38921 84863 10240 05003
56779 30479 35544 87021 59722
67137 11314 77888 91459 12720
77148 74211 60447 77317 07417
31262 34476 59144 12223 64810
62652 56411 04716 57051 76600
02048 34534 69523 99283 63673
31905 00873 75804 33549 91787
82203 58009 38926 08810 39183
00244 27471 11926 58943 80221
50312 15294 18061 67799 42623
64412 67467 41809 20146 44694
89138 80022 90197 87745 02406
63854 14375 000 000
Courtesy DanAR

Also heard by H-FD who posts:

Sun 12.06.2022 0300Z 13479 414:1-8615/122= 88911 via KiwiSDR USA
Sun 12.06.2022 0320Z 12179 414:1 via KiwiSDR USA
Sun 12.06.2022 0340Z 11479 414:1 via KiwiSDR USA

V13

New Star Broadcasting From Ary

13974 kHz 20-05-2022 1200 UTC
9276 kHz 20-05-2022 1200 UTC

13974 kHz 20-05-2022 1230 UTC
9276 kHz 20-05-2022 1230 UTC

7688 kHz 20-05-2022 1300 UTC
11430 kHz 20-05-2022 1300 UTC

7688 kHz 20-05-2022 1330 UTC
11430 kHz 20-05-2022 1330 UTC

13974 24-05-2022 1200 V13 USB New Star Broadcasting
9276 24-05-2022 1200 V13 USB New Star Broadcasting

13974 24-05-2022 1230 V13 USB New Star Broadcasting
9276 24-05-2022 1230 V13 USB New Star Broadcasting

7688 24-05-2022 1300 V13 USB New Star Broadcasting
11430 24-05-2022 1300 V13 USB New Star Broadcasting

7688 24-05-2022 1330 V13 USB New Star Broadcasting
11430 24-05-2022 1330 V13 USB New Star Broadcasting

V15 North Korean Intelligence via Radio Pyongyang

Nil Reports

V24

Nil Reports

V26

Nil Reports

Polytones

XPA1 c

Tuesday/Thursday

May 2022

0710z	11169kHz	0730z	12179kHz	0750z	13431kHz		
03/05	214 1					Unworkable	[0750z NRH]
05/05	214 1 02087 00152 01555 ... 21104			[0710z Weak]		Strong	
10/05	214 1 02570 00138 37696 ... 70415			[0750z Strong]		Fair QSB3	

214 214 214 1 214 214 214 1 214 214 214 1

02570 00138 37696 67816 51739 46559 94202 63836 59122 67611
45631 55191 93765 50271 44008 02200 09663 57093 25954 46194
35632 38833 26397 22306 14766 39874 04587 02415 96109 16518
08074 41745 61778 63639 44320 94803 48140 90534 59386 68342
73076 72974 11431 02906 72920 67867 89627 82810 93215 82165
92736 51341 08314 67755 59134 99908 72284 44910 09234 05050
27674 96267 55317 90911

18001 07065 00643 02335 61492 85950 05496 78832 76786 26993
92659 12220 92278 21581 66613 01362 49400 35346 87485 50236
53119 46757 84834 08342 14835 58708 99271 78458 32640 75076
15437 68976 66962 12352 82448 41498 97875 04828 90700 47587
98870 93224 97580 45800 27928 77472 01831 55168 84948 29035
07602 79101 29830 87699 22360 24215 69960 31456 52964 30001
88587 04513 25139 09009

85464 42470 42116 79514 44162 47726 49581 42061 61575 56241
65894 12918 70415
Courtesy PLdn

12/05	214 1 02570 00138 37696 ... 70415	[0710z Weak]	Fair
17/05	214 1 02570 00138 37696 ... 70415	[0750z Fair]	Weak QSB4 [Condx poor]
19/05	214 1 02570 00138 37696 ... 70415	[0750z Fair QSB3]	Weak QSB4
24/05	214 1 00502 00104 85979 ... 52470	[0750z Strong]	Weak

214 214 214 1 214 214 214 1 214 214 214 1

00502 00104 85979 47600 72796 89151 01152 06627 80064 35154
26380 03856 74517 57155 29515 21756 53333 82136 80238 17626
48044 41376 48737 26087 00349 36201 57848 78297 31411 25920
57205 08096 56724 41425 46416 23746 49628 22752 23979 81191
62778 65300 77466 10358 65130 35389 55976 77119 92496 18924
84999 05861 98900 38024 12242 01776 71847 25082 96609 71129
35107 48668 36129 03396

74686 54881 33257 92565 74846 81036 94022 81888 12082 29060
80581 66678 91556 50205 27882 01296 48731 09732 66523 55331
77188 35474 25723 58764 49819 77383 50333 32349 23794 18527
90278 07509 56355 98266 82831 17912 13697 72566 67001 52607
31203 15542 52470

Courtesy PLdn

26/05	214 1 00502 00104 85979 ... 52470	[0750z Fair]	Weak
31/05	214 1 00502 00104 85979 ... 52470	[0710z Fair]	Strong

June 2022

0710z	11421kHz	0730z	12151kHz	0750z	13972kHz
02/06	976 1 00502 00104 85979 ... 52470			[0710z Weak QSB4]	Strong
07/06	976 1 00445 00138 85557 ... 04761			[0750z Strong]	Fair

976 976 976 1 976 976 976 1 976 976 976 1

00445 00138 85557 06613 26117 70722 67770 26460 28987 55606
32773 88335 02461 64420 82499 79380 61184 35943 55597 67578
92176 91876 38414 28054 99199 17635 15032 18782 02299 59506
27422 94340 82859 98427 07490 70617 32653 25351 59152 58282
61757 61602 52872 36024 55121 86851 22254 16932 44171 87775
86263 41267 10941 42634 51203 78687 62570 13863 77980 61417
08764 45521 72653 65171

36620 24806 66315 48278 36156 20530 58132 07907 34181 41216
62332 63142 38358 20579 33081 33402 91060 27273 59352 40396
27462 27510 13929 18761 27521 36997 38339 32295 20895 38767
99612 42263 62151 17000 99211 70343 61707 45979 76241 81812
08053 56124 65042 77016 62194 06202 80180 66582 20716 56268
18426 35046 05748 06566 73145 92345 03665 79442 07437 77681
54320 27491 33663 42113

24073 97786 14595 50615 69180 28795 22325 87243 94143 33340
80343 61506 04761

Courtesy PLdn

09/06	976 1 00445 00138 85557 ... 04761	[0710z Weak, QSB4]	Strong
14/06	976 1 00445 00138 85557 ... 04761	[0710z Fair, QRM2]	Strong
16/06	976 1 00445 00138 85557 ... 04761	[0710z Weak, QSB3]	0730z Strong, 0750z Very strong
21/06	976 1 01694 00126 81105 ... 51332	<i>Poor condx</i>	Weak, QSB4
23/06	976 1 01694 00126 81105 ... 51332	[0750z 30s intro before LoS]	Weak

976 976 976 1 976 976 976 1 976 976 976 1

01694 00126 81105 81520 72978 15839 76267 44573 64854 09457
34061 12905 78339 15532 73156 07325 50149 30007 76119 66606
81561 20644 21279 82727 26835 68824 46428 82615 00404 40660
06290 06410 40417 24929 74006 41312 22588 48079 28247 09477
70733 99580 22941 97823 45795 18693 24094 90903 69769 95438
90110 22087 03839 30645 80813 20769 06744 07202 95101 05209
84543 11901 71849 50177

32464 76522 00688 50538 65257 51900 93989 69520 72082 37962
06054 61069 44356 85688 29748 36337 67519 71276 33488 32894
82603 52807 89737 08242 36381 77786 73597 83842 57491 89146
75545 83301 01776 12817 97761 00249 96315 18972 17009 25273
86050 62381 01845 08171 80018 12382 07519 60508 94152 57576
55096 82900 01696 69677 33305 82747 05534 30563 87755 91068
45689 46246 53466 10167

51332

Courtesy PLdn

28/06	976 1 01694 00126 81105 ... 51332	[0710z Weak, QSB3]	Strong
30/06	976 1 01694 00126 81105 ... 51332	[0750z Strong]	Weak

XPA1 Wed/Fri

May 2022

1210z	13419kHz	1230z	12219kHz	1250z	11419kHz
04/05	424 1 08278 00112 77471 ... 10673			[1210z TTYQRM4; 1230z Fair]	Weak QSB4
06/05	NOT MONITORED				
11/05	424 1 04006 00148 69272 ... <u>45513</u>			[1210z TTYQRM4]	Weak QSB4 [<u>Unsure last group</u>]
13/05	424 1 04006 00148 69272 ... 45513			[1210z Fair TTYQRM4]	Weak
18/05	Unworkable, TTYQRM4 and Weak, QSB4				
20/05	424 1 04006 00148 69272 ... 45513			[1210z TTYQRM4, 1250z Unworkable]	Fair
25/05	424 1 0nn17 00098 61454 ... <u>15214</u> Continued very poor copy across this schedule; 1210z centred between TTY signal of good strength. 1210 and 1230z seem to be troubled with fading hence QSB4 with loss of workable signal briefly.				
26/05	424 1 00817 00098 61454 ... 15124			[0710z Strong TTYQRM4]	Weak QSB4

June 2022

1210z	13545kHz	1230z	12145kHz	1250z	11145kHz
01/06	511 1 00817 00098 61454 ... 15124			[1210z Weak, QSB4]	Unworkable
	Very poor reception, variable condx also noted by H-FD as: Wed 01.06.2022 1210Z 13545 msg Wed 01.06.2022 1230Z 12145 msg Wed 01.06.2022 1250Z 11145 msg				
03/06	511 1 00817 00098 61454 ... 15124			[1210z Strong]	Weak QSB4
511 511 511 1 511 511 511 1 511 511 511 1 00817 00098 61454 39985 69018 33237 47124 79625 11031 24271 00798 47421 72365 10958 22277 62187 62433 85255 30523 19641 45865 78385 29648 09770 55562 33504 94618 51570 17156 89955 98379 07684 88544 04512 56782 43303 49161 45784 92223 12865 94789 46663 48795 57757 63004 93598 60681 86713 88951 03511 52476 41821 39244 86784 38178 10999 60847 39305 60759 13819 50645 69039 47445 32092 47819 67909 85103 08174 32417 75325 23601 54452 25002 08230 37745 23456 16499 52138 16067 47009 64793 61690 07397 55602 97819 65693 40350 37014 51922 03940 08323 17926 64761 92594 75430 04554 83941 26483 08751 46097 15124 <i>Courtesy PLdn</i>					
08/06	511 1 00767 00102 64359 ... unreadable			[1250z Unworkable]	Weak QSB4
10/06	511 1 00767 Mostly unreadable				1210z QSB4/5, 1230z QRM5, 1250z NRH
15/06	511 1 00762 00102 64359 ... 77100				1210z 1250z QSB4, 1230z QRM3/4 Weak
17/06	511 1 00762 00102 64359 ... 77100				1210z Weak, 1230z QRM5, 1250z NRH
22/06	511 1 06028 00126 2587 ... 23034				1210z Weak QSB3, 1230z QRM5, 1250z NRH
24/06	511 1 06028 00126 2587 ... 23034				1230z QRM4, 1250z Unworkable, 1210z Strong
29/06	511 1 06028 00126 2587 ... 23034				1210z Strong, 1230z QRM5, 1250z Fair, QRM3

XPA2 m

Sunday/Tuesday

May 2022

2100z	13376kHz	2120z	11576kHz	2140z	10776kHz
01/05	Msg [via H-FD]				
03/05	00287 00086 81506 ... 21124			[2120z Strong]	Very strong

10/05	01314 00024 78515 ... 62127		Strong
01314 00024 78515 53387 14484 23502 48808 80640 09502 22080 61889 97392 61893 43459 98414 70176 77504 12692 17304 78728 73670 15619 18724 31794 41987 15209 62127 <i>Courtesy PLdn</i>			
15/05	01314 00024 78515 ... 62127		Very strong
17/05	01314 00024 78515 ... 62127	[2100z Fair]	Strong
22/05	01314 00024 78515 ... 62127		Strong
24/05	00343 00194 31896 ... 01223		Very strong

00343 00104 31896 02496 29200 43838 74327 01628 64504 36508
15735 98635 01844 10351 07510 16990 36932 44048 37691 90291
03186 17733 73252 40064 02571 66497 92575 85090 10498 92866
50407 08776 79040 64394 19645 52480 54919 94948 51750 32867
48487 44925 11119 31515 88807 96970 50091 61271 08644 16248
80460 77447 24461 59156 79985 90824 10331 81361 83139 60546
65906 36690 15171 76501 73780 92743 74954 87136 01256 56740
74327 97616 96851 20787 50611 97494 43701 13425 37131 30125
83442 29801 16583 25676 33196 79343 01779 33176 80959 49213
93570 02656 27742 29277 00788 22948 58994 06419 83894 68670
09444 75593 14658 26348 84059 61479 01223 *Courtesy PLdn*

29/05	00343 00194 31896 ... 01223	[2100z Fair]	Strong
31/05	00532 00182 83761 ... 63501		Strong

00532 00182 83761 04122 42926 43331 97574 39156 30307 85309
47533 25645 11628 09025 68035 84678 45216 41211 13198 63724
01338 57671 16934 73503 34595 74197 97571 52429 62449 10615
77066 08775 36730 42179 52658 19415 99063 01302 40140 46797
91778 34673 01208 98237 66361 43619 80105 33602 80644 79925
42294 43032 09946 26949 24341 54849 39410 44343 89936 68363
66262 96917 99350 28111 80320 28777 56109 90267 32216 16025
72928 20169 43976 89308 63719 32898 36053 05152 36050 94330
51288 01958 81345 12444 80812 15849 99862 43729 71148 98046
48160 66895 59141 75522 95180 30200 28911 37780 07625 71362
94157 99746 12823 66601 86982 33884 68181 95002 82678 00663
50814 62277 56987 01642 34178 52397 69311 21115 84819 53981
46338 71004 89730 25654 73941 40065 81427 60442 41141 89131
15795 54058 66711 70008 00691 24010 54693 30065 68292 00258
11125 61609 26786 17791 03342 32434 40818 09956 72589 42897
14882 12122 07421 78242 70066 19283 26495 03598 44231 60969
46120 49030 44527 98861 23840 97816 06649 16114 60559 84002
65727 25033 47201 42600 47646 43536 17537 81065 31064 69190
56604 69281 55394 39216 63501 *Courtesy PLdn*

June 2022

2100z	13427kHz	2120z	12227kHz	2140z	10827kHz
05/06	00532 00182 83761 ... 63501			[2100z Strong]	Very strong

00532 00182 83761 04122 42926 43331 97574 39156 30307 85309
47533 25645 00628 09025 68035 84677 45216 41211 13198 63724
01338 57671 16933 73503 34584 64197 97571 42429 62448 10605
66066 08775 36730 42179 52658 19415 88063 01302 40140 46787
91778 34673 01208 88237 66361 43619 80105 33602 80644 79925
42294 43032 09946 16949 24341 54849 39410 44343 89936 68363
66262 96917 99350 28111 80320 28777 56109 90267 32206 16025
72928 20169 43976 89208 63708 32898 36053 05152 35050 94330
51288 00858 81345 02444 80812 15849 99862 43629 71148 98046
48160 66895 58141 75511 95180 33100 28911 37780 07625 71362
94157 88746 12823 66600 86982 33884 68181 95002 82678 00663
50814 62277 56986 01642 34178 52396 69311 21104 84819 53980
46338 71004 89730 25654 73930 40065 81427 60442 41131 78031
15795 53058 66711 70008 00691 24010 54693 30065 68292 00258
11025 61609 26786 17790 03342 32434 40818 09956 72589 42897
14882 12122 07421 78242 70066 19283 26495 03598 44231 60969
46120 49030 44527 98861 23840 97816 06649 16114 60559 84002
65727 25033 47201 42600 47646 43536 17537 81065 31064 69190
56604 69281 55394 39216 63501 *Courtesy PLdn*

07/06	00813 00204 27875 ... 10715		Very strong
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00813 00204 27875 20641 35457 72972 69687 04419 78981 79340
58804 94987 12803 52031 06908 66177 08071 10902 31776 80586
30287 90810 37743 23085 64014 84138 40017 13525 22157 39482
65525 90167 73276 26210 80699 78352 65148 44190 78173 64280
58694 19589 96743 23990 17275 66016 98813 32321 78178 73308
83928 59390 22240 68789 25999 83852 82131 85353 96449 38593
78842 45639 95050 43611 23876 22382 04787 52598 24291 31583
93849 89845 21976 45914 64511 91076 62902 24938 86080 87602
61297 35685 28574 30989 21505 59613 17824 24791 52135 53026
78827 51818 54675 20636 35718 84401 17943 21776 92635 44523
75241 54261 62014 02548 58433 69163 02676 50201 96364 76507
46505 75491 59121 41437 01376 83415 39925 33727 80283 88082
70757 76402 74389 91092 80436 97783 33546 97989 23391 69091
96633 28577 73557 03845 44922 36705 40032 50413 15209 20870
58344 80009 09318 09437 64699 62180 09001 49452 46227 25725
17515 47791 23434 69123 80652 37561 71755 63624 72678 19302
41816 34920 82677 12281 59014 45877 26456 40966 43388 73300
16425 51206 98541 35923 92527 02665 90374 97232 58942 81700
48791 78400 60072 10201 20102 92396 42470 22811 20565 79831
51015 89608 55941 86023 07614 86433 14674 66109 54789 17073
42552 98601 54559 68727 81848 03542 10715 *Courtesy PLdn*

12/06 00813 00204 27875 ... 10715 Very strong

14/06 00747 00176 10390 ... 31222 Very strong

00747 00176 10390 36905 27269 44500 77069 61445 99149 65716
93189 34160 26290 98886 68221 91730 70809 58830 30890 60779
64399 68747 74993 93423 67638 22548 26740 65754 31514 75862
65843 83310 11062 78235 33081 76151 48812 37128 94195 66216
95877 61773 50154 48973 20148 58772 44913 66933 60615 45357
10673 56142 48621 54226 94327 56291 32525 46254 19424 33610
61981 57590 77009 81230 60738 44464 56501 96337 30774 38680
04708 04334 03787 51651 48304 64561 47522 69848 65569 96364
93019 58032 26735 83429 93297 17537 37678 33860 04636 45248
69724 37041 55727 90911 86130 82913 88219 31227 84331 97914
69221 77999 28456 28223 43513 42536 11765 61533 17603 37900
16870 02394 91089 88462 22909 02668 51447 60741 49559 50484
31958 67270 68516 19044 91978 09364 07561 17744 61603 90113
72062 36558 09696 90312 40791 95450 87731 21774 25407 68542
58842 54574 06166 67444 29136 49326 27011 98230 66288 15791
14474 61085 53965 71092 06103 84917 89893 89425 68008 71663
26418 10293 41880 79294 82030 82326 92187 64027 88950 05830
18988 33969 04722 36447 29744 56620 38184 79052 31222

Courtesy PLdn

19/06 00747 00176 10390 ... 31222 [2100z Strong] Very strong

21/06 04092 00122 22888 ... 35353 Very strong

04092 00122 22888 63359 87359 70992 46310 96014 28642 28934
52687 06465 14908 91150 75567 18833 52521 41512 33551 81711
12606 41310 23925 90241 21376 17296 42620 72014 37518 51972
59024 13066 16873 54344 62780 53534 21109 04880 33654 19899
24598 84686 09760 88449 76429 16212 90520 14814 17281 75051
00743 34728 14495 23400 12145 04019 98399 87845 25709 66965
88068 84628 82097 27217 60594 77183 41299 61137 19398 91364
11065 22873 25515 95170 08097 11184 60551 13601 43676 99423
66557 85752 61986 44610 69997 26899 11085 15982 52927 24034
74715 39164 12675 86957 53069 45819 65261 91003 49453 87644
09967 80035 92345 93418 88893 98344 36625 16675 89530 31333
72312 64630 89071 41178 66931 80866 48916 04132 88016 15468
28889 89345 58586 61585 35353

Courtesy PLdn

26/06 04092 00122 22888 ... 35353 Very strong

28/06 00729 00124 95787 ... 12274 [2100z Strong] Very strong

00729 00124 95787 74559 08688 10625 91535 90046 91338 74701
87783 68301 81181 11666 33336 22256 10219 00183 36103 10876
08687 39454 91868 54622 98432 65544 33249 58124 18433 34086
53564 43246 66333 73228 34991 83709 55518 12453 33184 31269
41199 12098 98088 33676 16662 13315 83975 79281 48797 79614
87313 53075 20983 83504 92401 06785 82729 40442 64400 61248
70746 19963 87960 87091 78679 32961 03436 44923 22977 62748
70155 28721 83601 88967 25581 10449 93356 10311 74510 61080
17643 40030 45989 49306 48145 16898 00138 72939 89900 76482
44071 82069 59984 97971 76575 04728 13120 67555 77064 48280
76272 59720 77357 27084 97503 51571 83446 69079 24180 53352
98216 45151 12344 59877 86543 28277 76237 71396 95837 89912
73818 36868 55358 32130 12941 27521 12274

Courtesy PLdn

XPA2 p

Monday/Wednesday

May 2022

0700z	12148kHz	0720z	13448kHz	0740z	13948 kHz
02/05	Msg [via H-FD]				
04/05	02624 00188 00613 ... 34416		[0700z Weak, QSB4]		Fair QSB4
09/05	NOT MONITORED				
11/05	05365 00212 30556 ... 03334		[0740z Fair]		Weak QSB4

16/05	05365 00212 30556 ... 03334	[0700z Strong]	Very strong
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05365 00212 30556 58161 26049 19799 94600 61442 98211 42347
04653 05234 99122 18975 27693 61065 79734 28458 86381 13170
53261 95693 81245 41017 22812 01251 76750 22677 99500 71873
37420 46946 33916 59100 19188 30061 33323 87341 32752 40229
96814 90667 55683 26017 63657 89941 61804 87763 23588 99292
65647 04796 66439 62823 19372 64916 24726 57868 60110 68655
50105 69520 78684 97635 14187 70520 84349 87590 43044 93387
09627 53747 75254 50221 10526 07097 75652 76737 32771 40633
15535 47469 00370 62677 06766 50693 63492 95835 90892 47897
54538 76048 47324 18168 27113 56178 31357 52041 57030 27878
86519 87194 64354 41128 34113 50727 20177 30206 83958 19182
60816 41621 90036 48997 45132 99215 82282 16527 63445 91844
37391 08755 87553 11777 59141 65077 53327 07944 33374 72174
92137 03750 10455 83792 51905 25492 18322 49158 53732 42694
11246 55374 27667 23165 39840 15527 07852 35582 02425 51754
82255 84131 22438 00464 51807 15518 51760 23513 28071 07164
48186 29022 66006 11452 85566 51458 94022 56572 67221 45581
94534 10466 55341 85111 68528 85915 42160 00585 14681 83847
15559 32720 36802 45756 99624 67800 85110 17795 53183 69026
63673 34686 23718 52113 37883 65844 39204 95448 87981 68648
33767 70713 55307 04267 99339 81250 41864 94739 71414 25216
46411 72092 55945 64630 03334

Courtesy PLdn

18/05	05365 00212 30556 ... 03334	[0700z Strong]	Very strong
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23/05	00202 00108 79066 ... 41220	[0740z Fair, QRM2]	Very strong
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00202 00108 79066 19085 13483 83833 60972 02416 35076 87102
54597 22829 72089 75341 96454 42753 67540 21142 75045 49291
25719 38573 23119 59759 60662 75362 28533 75284 54580 20364
52047 40202 18742 46270 66277 59260 21904 42839 17990 85683
95826 44206 88034 38483 40219 21769 44189 41080 01340 49773
32519 59639 00907 94075 60483 55368 55188 39304 48538 00935
05605 10467 92967 10656 79964 92157 32598 51883 91458 85779
46654 52760 69770 98173 51739 56232 74212 87847 55255 13528
92832 38285 33955 02366 39385 97529 84953 78312 48956 94512
53339 92833 31714 61850 04115 65723 28712 46615 70288 69029
33981 45353 42264 80787 11071 07345 88528 98495 18782 43002
41220

Courtesy PLdn

25/05	00202 00108 79066 ... 41220		Strong
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30/05	00202 00108 79066 ... 41220	[0720z Very strong]	Strong
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June 2022

0700z	12148kHz	0720z	13448kHz	0740z	13948 kHz
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01/06	00202 00108 79066 ... 41220		Very strong
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06/06	00785 00126 96188 ... 11347		Very strong
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00785 00126 96188 15965 39727 56749 76190 88947 99804 12564
02962 78602 54375 93749 00518 22754 63033 01978 33729 06779
51008 24001 06072 98264 44106 13303 65667 18692 33245 16483
56456 67034 38756 17832 12571 70998 23926 06154 45444 34217
99586 18894 00178 11508 99430 24629 13745 30663 47240 44059
99366 60094 09327 30937 94656 46548 32244 61900 76064 12400
83443 83687 01536 59433 18298 07542 83448 30288 55919 68449
64974 67056 60376 96765 12216 66373 02946 20761 64689 13103
40706 95970 25823 90612 98526 77326 65399 51856 43712 97676
21576 39065 64352 50107 50555 27378 94891 17091 84499 97681
12968 24361 47037 19553 05244 66529 78685 76180 87544 13778
62408 77822 72870 86668 06750 53619 73112 93846 70630 17865
99660 33078 33512 61780 16769 16178 73174 80481 11347

Courtesy PLdn

08/06	00785 00126 96188 ... 11347	[0740z Weak, QRM3]	Strong
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13/06	00785 00126 96188 ... 11347	[0740z Weak]	Strong
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15/06	00785 00126 96188 ... 11347		Strong
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20/06	00818 00138 00493 ... 20761	[0740z Very strong]	Strong
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00818 00138 00493 96416 55612 15176 92655 36234 06746 93310
12016 10035 79301 85281 88976 62091 72912 67632 43273 32940
99134 71275 15115 24558 47118 05200 19489 35089 87129 39999
27265 52127 94321 27360 96531 35984 03043 73329 79638 33744
70481 22710 49514 35358 02768 03804 05889 26916 85811 29099
64751 35355 30358 29972 93728 00085 49325 44860 82056 21490
70329 37884 42143 98563 95674 84858 81809 05329 57054 93708
39167 27292 33147 56196 80590 87610 73065 58043 86005 88552
84131 29594 89568 11675 17229 31588 97892 76554 08166 63482
99941 83500 11930 99958 54753 67609 96775 00567 06237 54364
16259 28646 34279 96110 22473 96492 75073 78529 46307 45221
80670 40405 09413 72083 79323 92549 84038 50614 60607 33163
41857 99818 88038 95194 58030 16040 48454 16443 43534 46535
24413 67345 57993 42803 37423 85616 05477 56512 86048 75351
20761

Courtesy PLdn

22/06	00818 00138 00493 ... 20761	[0740z Weak, QRM2]	Strong
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27/06	00818 00138 00493 ... 20761		Very strong
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29/06	00818 00138 00493 ... 20761	[0740z Strong]	Very strong
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XPA2 Wednesday/Friday

May 2022

2100z	12124kHz	2120z	11124kHz	2140z	10624kHz
04/05	04356 00164 79520 ... 05155				Very strong
06/05	NOT MONITORED				
11/05	07688 00122 77702 ... 33335				Very strong
13/05	07688 00122 77702 ... 33335			[2140z Strong]	Very strong
18/05	00177 00028 42526 ... 12142				Strong
00177 00028 42526 68675 51876 61865 75007 17270 08443 56555 26617 85227 55431 86892 13551 16671 22620 19275 91807 36467 64441 65432 20927 49639 07299 14856 65658 87159 35348 79759 12142 <i>Courtesy PLdn</i>					
20/05	00177 00028 42526 ... 12142			[2140z Strong]	Very strong
25/05	00795 00206 66767 ... 63017				Very strong
00795 00206 66767 16741 69303 30763 81183 91660 37851 92339 50708 20219 06704 38041 09361 49901 87062 05038 09516 58729 46206 17545 24477 15717 69159 18954 39075 67814 14637 10404 95496 52851 51505 28602 67260 17004 43953 23474 37261 43858 20297 30223 16021 20218 46093 03767 86752 63973 90936 86353 15175 73560 27041 97186 41025 40031 00985 16520 48371 77982 86330 66114 99700 16621 34892 08592 66191 66987 03730 45941 37228 82230 33818 89480 66903 11513 80586 24957 47178 20914 76714 41143 82302 78127 89969 11953 95445 59233 78118 02941 36940 41907 59627 63947 65083 61843 73625 34510 23207 28856 44114 02183 43109 79765 66688 45885 56599 04016 82356 62202 40442 01507 16362 55118 54670 41831 35790 93056 44301 90097 66736 47319 87485 86582 55215 39945 68644 79970 58870 62423 83932 25697 06647 23949 97822 92337 83430 02095 94885 91528 71526 41180 27742 88689 48815 34995 50508 51652 26063 33307 66498 77465 75334 30363 80719 44704 02961 04100 89181 72768 06866 63182 61653 59968 75079 96516 98666 98460 03416 98368 62922 45277 36016 99047 47027 37222 73990 67954 61948 94907 20053 92825 17576 00233 20779 04448 54197 61407 60967 32059 00997 06064 41522 21972 78088 41263 92525 32086 90551 05487 98313 59344 24488 32749 81013 42937 55687 55194 63017 <i>Courtesy PLdn</i>					
27/05	00795 00206 66767 ... 63017				Very strong

June 2022

2100z	13462kHz	2120z	12162kHz	2140z	11562kHz
01/06	05887 00214 62865 ... 32371			[2100z Very strong]	Strong
05887 00214 62865 57662 99718 99333 43002 40761 40701 99622 62018 26439 30841 13860 85348 09150 86003 76558 63243 00186 17198 91347 18594 69160 70628 52197 25776 48593 38287 18887 48613 87380 63616 78321 71792 86857 11407 19920 94653 13878 89427 71764 76174 26988 72907 66566 67951 64004 93144 17182 32463 52630 56566 79442 41795 00480 52751 31805 73245 68013 51263 68132 97822 28005 32963 46147 84482 16509 83846 68225 60901 97399 15540 37787 55763 04549 09313 19351 12058 56622 80611 06746 71641 33092 68274 49370 32746 55527 57566 08355 42218 46033 01144 39520 74750 07786 73458 59512 12539 29367 95388 74285 70740 75724 49559 36364 75544 95898 72324 58948 37202 63673 25635 01780 32098 69018 72943 13441 96367 62013 20337 58118 75449 94762 85799 30712 23153 88773 31039 65301 95146 14807 27405 80573 68778 07734 30835 32601 60353 66266 16669 05687 19762 09144 05150 53785 71456 16371 70298 44561 15558 37658 45735 43516 83455 58988 09690 67968 37825 90441 08877 01174 48382 22315 89467 67757 92842 46348 60487 88223 32085 03841 15212 92508 12747 78946 65186 15356 20990 70979 56138 93964 67559 77253 59380 59268 34993 21438 37660 18957 94074 71489 75567 69271 17308 57128 66865 92534 48113 22698 19979 43056 20584 00445 59425 15891 49426 66956 12027 10751 69057 71369 37129 42611 60103 37030 32371 <i>Courtesy PLdn</i>					

03/06	05887 00214 62865 ... 32371	[2140z Strong]	Very strong
08/06	00553 00186 65665 ... 17613		Very strong

00553 00186 65665 09268 63980 92198 85432 34639 69169 81243
30288 54988 51331 31813 41648 80752 07265 03503 51758 13785
48628 92220 45361 33170 92481 48288 24585 05377 69208 27121
80206 31479 81298 28855 25814 17924 11083 67410 01846 38149
09147 43144 62608 57795 87305 22260 07514 23448 22381 86278
13059 12005 26757 43809 94910 00852 67477 32231 30416 58358
25378 89267 67475 25838 57378 68240 27586 08305 49081 63475
07144 47221 22958 07901 04139 94840 31715 04240 28023 61720
47671 93271 34606 79280 46951 57956 10159 14942 52342 18103
46160 84353 10592 35955 93074 96195 17560 11143 13537 30858
90816 08662 86006 62676 50927 35659 35067 85058 37024 61235
45552 17557 68776 81589 72605 63346 22852 82515 95767 82401
36595 78423 98726 65766 16867 99263 38449 38164 37854 33590
23064 86569 13793 47823 09485 73980 53722 21994 43531 09322
74524 43348 49478 68436 80619 80638 60192 12590 10410 44742
79196 22010 64931 73347 99897 69638 20382 07485 74152 17960
43080 96220 22104 75954 05086 55333 88387 28447 30760 81953
90544 68645 36608 62365 82063 38905 83722 55426 45529 55012
90371 05413 07414 36807 54933 48266 02055 59447 17613

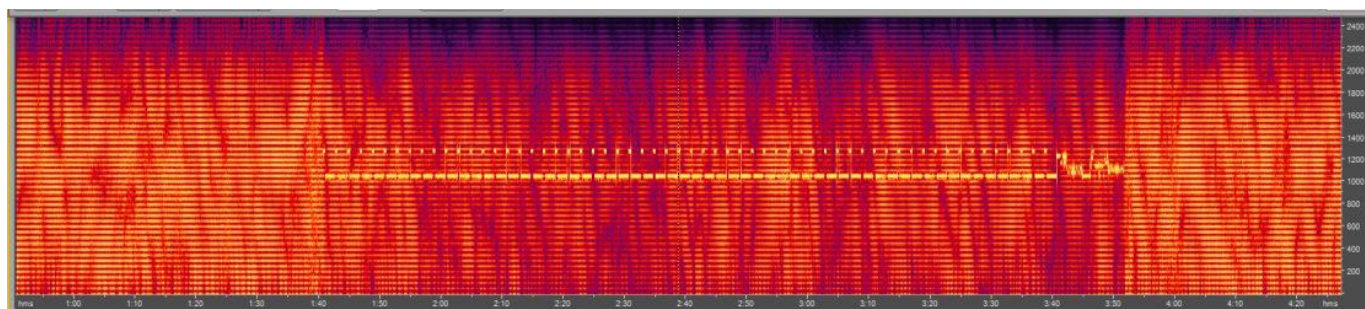
Courtesy PLdn

10/06	00553 00186 65665 ... 17613		Very strong
15/06	06282 00096 96121 ... 51565		Very strong

06282 00096 96121 48284 09526 02290 06430 73175 59750 78902
32495 53824 12228 90787 72872 60690 67263 83391 23089 76752
95810 11664 84240 28050 35431 52365 84541 17756 50281 61910
13166 31280 33470 64576 61507 05354 98069 39581 54698 99175
66498 91428 12449 73318 38292 91531 99046 45476 21261 88590
64193 01537 21575 84760 95791 89816 63609 59911 02126 34227
12184 61519 52814 25022 59872 94672 94362 84717 25785 71126
78257 07010 43265 37332 09231 74589 42355 44937 34512 69720
93203 18383 02825 39621 87706 15507 35987 89069 92890 97891
00155 53342 99850 90535 51789 64145 01638 88751 51565

Courtesy PLdn

17/06	06282 00096 96121 ... 51565		Very strong
22/06	09096 00001 00000 ... 34272		Very strong
25/06	05959 00001 00000 ... 42262	[2120z QRM2, 2140z Fair]	Very strong [See image below]:



XPA2 Wed/Fri 12162kHz 2120 z 24/06 QRM2

30/06	02845 00148 27932 ... 12043		Very strong
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02845 00148 27932 64850 79330 39016 99874 11064 25668 63467
93854 21675 62910 08659 63056 01067 84988 86924 00036 23088
45164 06954 29894 35524 64518 58731 05480 02453 85648 08183
88297 36300 77395 30957 11377 27880 86252 02400 51225 24377
15746 39893 34238 05607 42555 30608 75340 14245 61144 35282
46712 73459 60077 32722 64980 89706 52908 22634 26992 77961
34287 95421 46872 81207 49235 73824 55066 10204 26800 60103
88460 63831 56526 25547 15771 98182 18002 71281 85094 95675
11578 40645 54273 04710 74326 25460 81589 62078 99252 83970
83098 54284 35396 94905 14161 98567 05535 16664 66735 99483
79593 69539 25484 24794 97101 34845 03989 53582 05855 05005
39108 98450 18787 48133 92953 97733 68690 54582 54650 29971
15836 45866 21347 73310 93512 56376 73246 77423 13664 16740
12640 55751 05126 10798 43020 20945 73146 89737 47569 20255
41608 08853 21900 57170 76734 00545 01340 42662 18668 51651
12043

Courtesy PLdn

Other XPA2

XPA2 14794,0 kHz 0910z 26.05. [see transcript below] 0913z QSA5 QRM1 QRN1 QSB1 tiNG-Twente

08150 00087 68704 84500 87609 76495 78842 97063 37551 73786 44759 54446 79219 14288 16970
03526 91783 82768 89525 43033 28046 65527 81090 36715 73550 21876 29158 29084 65242 86372
16331 27559 13388 02498 14731 59619 99593 93684 33359 50208 63465 12462 3646 55133 38673
69270 30478 47834 74637 29664 06398 25320 68756 01252 08273 05955 32061 00906 77406 33504
49279 80643 40434 01698 29901 04773 03134 01138 22334 57702 34634 33840 88439 91356 56394
98292 13947 79412771339 2751 94052 88658 71827 85754 08491 88877 51440 9921 44402 5322

Errors resulting from SDR-stream!

XPA2 16147,0 kHz 1100z 26.05. [see transcript below] 1104z QSA5 QRM2 QRN1 QSB1 tiNG-Twente THU

XPA2 15847,0 kHz 1120z 26.05. [see transcript below] 1124z QSA5 QRM1 QRN1 QSB1 tiNG-Twente THU

XPA2 14747,0 kHz 1140z 26.05. [see transcript below] 1144z QSA5 QRM2 QRN1 QSB1 tiNG-Twente THU

08501 00177 52401 47648 71252 94603 21805 14065 18662 19453 97543 37475 48337 83251 61800
22596 04638 46399 96281 09424 58652 52756 52999 81081 86191 89883 60691 96442 98899 50445
13688 61730 41010 37432 45552 57298 83421 08115 70683 16420 15491 60458 07478 34589 46068
24473 39534 39914 51084 09015 06551 49800 43497 08743 86089 42208 71710 86075 68565 51610
76978 32758 49198 11364 57770 88674 47341 83973 57119 15693 32349 57802 11586 26790 44115
14649 39239 43056 54139 94149 96159 66599 15256 75628 05932 58270 26118 75927 28148 55399
04803 53848 03028 58499 32794 48526 12780 32504 25980 10498 55357 16208 59335 67609 20354
24414 90130 28753 04576 28722 39344 49007 35261 43243 23237 26034 04494 89453 69287 01123
04445 85011 59193 25715 53791 54299 29043 91109 99552 76421 05104 17818 33658 23010 83355
63374 44676 80850 46207 65129 74423 50198 76448 72864 77457 87215 56137 70771 26686 42375
24588 40668 82755 96098 67877 34658 56778 38136 82562 40726 15125 32714 65884 89489 57500
36796 16216 13592 75637 95063 18064 71023 54455 67965 25581 40251 55258 96504 61870 02524

Courtesy PLdn

From H-FD:

1B XPA2

Mon 02.05.2022 1500Z 15938 msg

Mon 02.05.2022 1520Z 14538 msg

Mon 02.05.2022 1540Z 13438 msg

Wed 04.05.2022 1100Z 16147 msg

Wed 04.05.2022 1120Z 15847 msg

Wed 04.05.2022 1140Z 14747 msg

Thu 05.05.2022 0910Z 14794 msg

Thu 05.05.2022 0930Z 13994 msg

Thu 05.05.2022 0950Z 12194 msg

Fri 06.05.2022 1100Z 16159 msg

Fri 06.05.2022 1120Z 14359 msg

Fri 06.05.2022 1140Z 13459 msg

Mon 09.05.2022 0910Z 17431 msg

Mon 09.05.2022 0930Z 15841 msg

Mon 09.05.2022 0950Z 13934 msg

From Ary:

10315 07-06-2022 0500 XPA2 MFSK-16/20bd

11115 07-06-2022 0520 XPA2 MFSK-16/20bd

12215 07-06-2022 0540 XPA2 MFSK-16/10bd

04980 00401 60423 80300 00958 99516 49474 69725 39063 06540
62594 26755 77204 69160 79596 92066 92986 81926 46841 11755
02719 43914 59510 82379 06447 35352 23000 67520 55456 34897
98643 22468 05159 13001 98763 78032 84220 40095 37791 07417
78257 88493 47644 56453 40447 13698 18827 71533 47000 72603
08760 31821 79416 57008 79089 69322 15027 62113 37455 90107
35825 71952 49267 60018 62886 77610 02279 51175 35010 29471
73478 55019 42532 91336 87690 42921 17905 83545 43046 75526
23420 20876 88631 88271 36961 32841 31351 33637 97904 96532
86722 11025 12268 66155 72954 30048 95978 64022 95629 21010
33427 85039 49027 53402 99268 49270 52588 75334 28208 77485
10431 64039 08586 89038 46169 50110 88305 35123 77053 67482
80803 70281 51095 31873 37763 89259 81437 89141 43548 16758
04177 66944 59743 19643 06301 89732 01234 86295 61214 02804
03309 10584 33960 70737 76930 87789 09365 26022 37606 05298
06585 26248 87428 14367 83683 62960 08844 03182 65284 26127
24044 78173 46766 42260 20154 58052 94700 46097 00392 05637
36318 14884 34229 76590 56475 17994 22869 95358 73046 79964
00998 57005 31301 21223 98623 44054 49807 38707 75634 63273
45460 99341 96355 68256 45367 71861 29829 18006 99603 80410
74524 45908 97123 78763 68195 41012 89999 46929 60190 67453
04143 21090 37886 18344 23623 31937 48272 58986 39926 62040
27160 55199 86053 86040 88360 67339 19159 68863 46666 57829
03474 68633 91228 80315 34208 74646 06343 36955 65704 63149
19752 98943 69913 12513 04209 17704 79197 07180 37825 45433
20538 59273 72994 25064 48745 38536 46247 68798 33121 10646
96233 88851 55258 19061 55240 27162 10017 81526 49215 94966
61837 67290 75736 96506 24644 58678 95184 39007 42448 12499
14540 37574 14869 90298 45597 96303 81505 23525 87628 14266
70824 50539 53570 32031 03187 17323 86235 13389 03186 56387
00063 61754 00934 76467 08709 80318 69631 75051 37021 01627
31614 02882 94784 26419 14335 41874 17615 04262 64750 47996
79909 64627 41061 46032 14467 69530 49674 04260 36372 58308

56749 07200 57244 46206 67383 32590 27545 29501 10711 60257
06601 74310 78233 18457 01366 05488 38501 57882 96940 42278
48154 34712 54877 98998 57857 43285 42119 55753 36754 06275
59062 75448 81319 63492 27294 95455 58485 66928 60938 93966
11304 52832 20389 18925 60592 57562 32662 27393 16731 40238
46472 26726 02881 69043 66280 04706 76250 20545 15506 04186
27817 39764 48296 89083 92123 79825 68715 38687 65840 63062
84023 18039 58024 63026 *Courtesy Ary*

From H-FD, also heard my HJH:

1B XPA2

Wed 01.06.2022 1100Z 15982 msg
Wed 01.06.2022 1120Z 14982 msg
Wed 01.06.2022 1140Z 13882 msg

Thu 02.06.2022 0910Z 13527 msg
Thu 02.06.2022 0930Z 12227 msg
Thu 02.06.2022 0950Z 11427 msg

Thu 02.06.2022 1600Z 13417 msg
Thu 02.06.2022 1620Z 14817 msg
Thu 02.06.2022 1640Z 15917 msg

Sat 04.06.2022 1500Z 14892 msg
Sat 04.06.2022 1520Z 13492 msg
Sat 04.06.2022 1540Z 12192 msg

Mon 06.06.2022 0910Z 17417 msg
Mon 06.06.2022 0930Z 15812 msg
Mon 06.06.2022 0950Z 14504 msg

Tue 07.06.2022 0500Z 10315 msg
Tue 07.06.2022 0520Z 11115 msg
Tue 07.06.2022 0540Z 12215 msg

Tue 07.06.2022 1100Z 15874 msg
Tue 07.06.2022 1120Z 14474 msg
Tue 07.06.2022 1140Z 13374 msg

Fri 10.06.2022 0800Z 13373 msg
Fri 10.06.2022 0820Z 13973 msg
Fri 10.06.2022 0840Z 14973 msg

XPB1

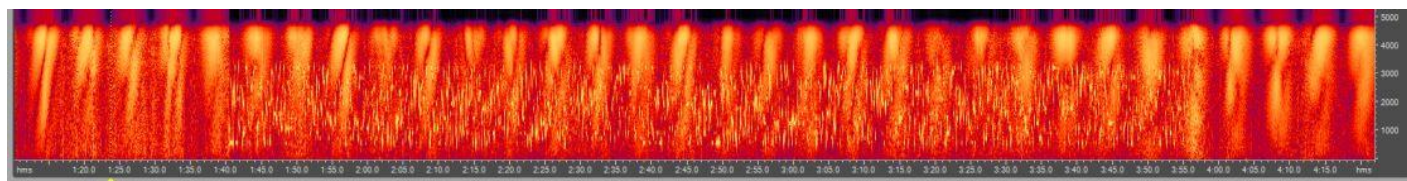
SUN/TUE

May 2022

01/05	Msg [from H-FD] 2m15s					
14852kHz 1900z	03/05	Fair	2m15s		PLdn	TUE
13952kHz 1910z	03/05	Fair	2m15s		PLdn	TUE
12152kHz 1920z	03/05	Strong	2m15s		PLdn	TUE
11152kHz 1930z	03/05	Strong	2m15s		PLdn	TUE
10352kHz 1940z	03/05	Weak	2m15s		PLdn	TUE
9252kHz 1950z	03/05	Fair	2m15s		PLdn	TUE
08/05	NOT MONITORED					
14852kHz 1900z	10/05	Fair	4m28s	QRM3	PLdn	TUE
13952kHz 1910z	10/05	Strong	4m28s		PLdn	TUE
12152kHz 1920z	10/05	Strong	4m28s		PLdn	TUE
11152kHz 1930z	10/05	Strong	4m28s		PLdn	TUE
10352kHz 1940z	10/05	Strong	4m28s		PLdn	TUE
9252kHz 1950z	10/05	Strong	4m28s		PLdn	TUE
14852kHz 1900z	15/05	Strong	4m28s		PLdn	SUN
13952kHz 1910z	15/05	Fair	4m28s		PLdn	SUN
12152kHz 1920z	15/05	Fair	4m28s		PLdn	SUN
11152kHz 1930z	15/05	Fair	4m28s		PLdn	SUN
10352kHz 1940z	15/05	Fair	4m28s		PLdn	SUN
9252kHz 1950z	15/05	Weak	4m28s		PLdn	SUN
14852kHz 1900z	17/05	Strong	1m40s		PLdn	TUE
13952kHz 1910z	17/05	Strong	1m40s		PLdn	TUE
12152kHz 1920z	17/05	Strong	1m40s		PLdn	TUE
11152kHz 1930z	17/05	Strong	1m40s		PLdn	TUE
10352kHz 1940z	17/05	Strong	1m40s		PLdn	TUE
9252kHz 1950z	17/05	Strong	1m40s		PLdn	TUE

14852kHz 1900z	22/05	Fair	1m40s		PLdn	SUN
13952kHz 1910z	22/05	Fair	1m40s		PLdn	SUN
12152kHz 1920z	22/05	Strong	1m40s		PLdn	SUN
11152kHz 1930z	22/05	Fair	1m40s		PLdn	SUN
10352kHz 1940z	22/05	Weak	1m40s		PLdn	SUN
9252kHz 1950z	22/05	Fair	1m40s		PLdn	SUN
14852kHz 1900z	24/05	V.strong	4m28s		PLdn	TUE
13952kHz 1910z	24/05	V.strong	4m28s		PLdn	TUE
12152kHz 1920z	24/05	V.strong	4m28s		PLdn	TUE
11152kHz 1930z	24/05	Fair	4m28s		PLdn	TUE
10352kHz 1940z	24/05	Fair	4m28s		PLdn	TUE
9252kHz 1950z	24/05	Weak	4m28s		PLdn	TUE
14852kHz 1900z	29/05	Strong	4m28s		PLdn	SUN
13952kHz 1910z	29/05	Strong	4m28s		PLdn	SUN
12152kHz 1920z	29/05	Strong	4m28s	QRM2	PLdn	SUN
11152kHz 1930z	29/05	Strong	4m28s		PLdn	SUN
10352kHz 1940z	29/05	Strong	4m28s	QRM2	PLdn	SUN
9252kHz 1950z	29/05	Strong	4m28s		PLdn	SUN
14852kHz 1900z	31/05		Antenna isolated	LIGHTNING	PLdn	TUE
13952kHz 1910z	31/05		Antenna isolated	LIGHTNING	PLdn	TUE
12152kHz 1920z	31/05		Antenna isolated	LIGHTNING	PLdn	TUE
11152kHz 1930z	31/05		Antenna isolated	LIGHTNING	PLdn	TUE
10352kHz 1940z	31/05		Antenna isolated	LIGHTNING	PLdn	TUE
9252kHz 1950z	31/05	Weak	2m15s		PLdn	TUE

June 2022



12163kHz 1930z 05/06 illustrates QRM encountered

15863kHz 1900z	05/06	Strong	2m15s		PLdn	SUN
14963kHz 1910z	05/06	Strong	2m15s		PLdn	SUN
13963kHz 1920z	05/06	Fair	2m15s	QRM3	PLdn	SUN
12163kHz 1930z	05/06	Fair	2m15s	[A]	PLdn	SUN
11163kHz 1940z	05/06	Fair	2m15s		PLdn	SUN
10463kHz 1950z	05/06	Fair	2m15s		PLdn	SUN
[A] QRM with little effect to signal; see image above						
15863kHz 1900z	07/06	Fair	4m28s		PLdn	TUE
14963kHz 1910z	07/06	Fair	4m28s		PLdn	TUE
13963kHz 1920z	07/06	Strong	4m28s		PLdn	TUE
12163kHz 1930z	07/06	Strong	4m28s		PLdn	TUE
11163kHz 1940z	07/06	Fair	4m28s		PLdn	TUE
10463kHz 1950z	07/06	Fair	4m28s		PLdn	TUE
15863kHz 1900z	12/06	Weak	4m28s		PLdn	SUN
14963kHz 1910z	12/06	Weak	4m28s		PLdn	SUN
13963kHz 1920z	12/06	Weak	4m28s		PLdn	SUN
12163kHz 1930z	12/06	V.strong	4m28s		PLdn	SUN
11163kHz 1940z	12/06	Strong	4m28s		PLdn	SUN
10463kHz 1950z	12/06	Strong	4m28s		PLdn	SUN
15863kHz 1900z	14/06	Fair	2m15s		PLdn	TUE
14963kHz 1910z	14/06	Fair	2m15s		PLdn	TUE
13963kHz 1920z	14/06	Strong	2m15s		PLdn	TUE
12163kHz 1930z	14/06	V.strong	2m15s		PLdn	TUE
11163kHz 1940z	14/06	Strong	2m15s		PLdn	TUE
10463kHz 1950z	14/06	Strong	2m15s		PLdn	TUE
15863kHz 1900z	19/06	V.strong	2m15s		PLdn	SUN
14963kHz 1910z	19/06	V.strong	2m15s		PLdn	SUN
13963kHz 1920z	19/06	Weak	2m15s	QRM3	PLdn	SUN
12163kHz 1930z	19/06	Weak	2m15s	QRM3	PLdn	SUN
11163kHz 1940z	19/06	Weak	2m15s		PLdn	SUN
10463kHz 1950z	19/06	Weak	2m15s		PLdn	SUN
15863kHz 1900z	21/06	Strong	2m15s		PLdn	TUE
14963kHz 1910z	21/06	Strong	2m15s		PLdn	TUE
13963kHz 1920z	21/06	Strong	2m15s		PLdn	TUE
12163kHz 1930z	21/06	V.strong	2m15s		PLdn	TUE
11163kHz 1940z	21/06	Strong	2m15s		PLdn	TUE
10463kHz 1950z	21/06	Strong	2m15s		PLdn	TUE

15863kHz 1900z	26/06	Strong	2m15s		PLdn	SUN
14963kHz 1910z	26/06	Strong	2m15s		PLdn	SUN
13963kHz 1920z	26/06	Strong	2m15s		PLdn	SUN
12163kHz 1930z	26/06	Strong	2m15s		PLdn	SUN
11163kHz 1940z	26/06	Strong	2m15s		PLdn	SUN
10463kHz 1950z	26/06	Strong	2m15s		PLdn	SUN
15863kHz 1900z	28/06	Strong	2m16s		PLdn	TUE
14963kHz 1910z	28/06	Strong	2m16s		PLdn	TUE
13963kHz 1920z	28/06	Weak	2m16s		PLdn	TUE
12163kHz 1930z	28/06	Weak	2m16s		PLdn	TUE
11163kHz 1940z	28/06	Weak	2m16s		PLdn	TUE
10463kHz 1950z	28/06	Weak	2m16s		PLdn	TUE

MON/SAT

May 2022

02/05 NOT MONITORED

07/05 NOT MONITORED

09/05 Msg [From H-FD] 4m29s

16329kHz 1200z	14/05	Weak	4m28s		PLdn	SAT
15929kHz 1210z	14/05	Weak	4m28s		PLdn	SAT
14829kHz 1220z	14/05	NRH			PLdn	SAT
14429kHz 1230z	14/05	Weak	4m28s		PLdn	SAT
13929kHz 1240z	14/05	Weak	4m28s		PLdn	SAT
13529kHz 1250z	14/05	Weak	4m28s		PLdn	SAT
16329kHz 1200z	16/05	Weak	1m40s		PLdn	MON
15929kHz 1210z	16/05	Weak	1m40s		PLdn	MON
14829kHz 1220z	16/05	NRH			PLdn	MON
14429kHz 1230z	16/05	NRH			PLdn	MON
13929kHz 1240z	16/05	Weak	1m40s		PLdn	MON
13529kHz 1250z	16/05	Weak	1m40s		PLdn	MON
16329kHz 1200z	21/05	Weak	1m40s		PLdn	SAT
15929kHz 1210z	21/05	Fair	1m40s		PLdn	SAT
14829kHz 1220z	21/05	Weak	1m40s		PLdn	SAT
14429kHz 1230z	21/05	Weak	1m40s		PLdn	SAT
13929kHz 1240z	21/05	Weak	1m40s	QRM3	PLdn	SAT
13529kHz 1250z	21/05	Weak	1m40s		PLdn	SAT
16329kHz 1200z	23/05	Unworkable		Poor Condx throughout	PLdn	MON
15929kHz 1210z	23/05	Unworkable			PLdn	MON
14829kHz 1220z	23/05	NRH			PLdn	MON
14429kHz 1230z	23/05	NRH			PLdn	MON
13929kHz 1240z	23/05	NRH			PLdn	MON
13529kHz 1250z	23/05	NRH			PLdn	MON
16329kHz 1200z	28/05	NRH		Poor Condx throughout	PLdn	SAT
15929kHz 1210z	28/05	NRH			PLdn	SAT
14829kHz 1220z	28/05	NRH			PLdn	SAT
14429kHz 1230z	28/05	NRH			PLdn	SAT
13929kHz 1240z	28/05	NRH			PLdn	SAT
13529kHz 1250z	28/05	Weak	4m28s		PLdn	SAT
16329kHz 1200z	30/05	Unworkable		Variable Condx throughout	PLdn	MON
15929kHz 1210z	30/05	Unworkable			PLdn	MON
14829kHz 1220z	30/05	Unworkable			PLdn	MON
14429kHz 1230z	30/05	Unworkable			PLdn	MON
13929kHz 1240z	30/05	Fair	1m30s		PLdn	MON
13529kHz 1250z	30/05	Strong	1m30s		PLdn	MON

June 2022

15876kHz 1200z	04/06	NRH	variable conditions throughout schedule		PLdn	SAT	H-FD Full copy across schedule: Sat 04.06.2022 1200Z 15876 msg 1:30 Sat 04.06.2022 1210Z 14876 msg Sat 04.06.2022 1220Z 14376 msg Sat 04.06.2022 1230Z 13976 msg Sat 04.06.2022 1240Z 13376 msg Sat 04.06.2022 1250Z 12176 msg
14876kHz 1210z	04/06	NRH			PLdn	SAT	
14376kHz 1220z	04/06	Unworkable			PLdn	SAT	
13976kHz 1230z	04/06	NRH			PLdn	SAT	
13376kHz 1240z	04/06	Weak	1m29s		PLdn	SAT	
12176kHz 1250z	04/06	NRH			PLdn	SAT	
15876kHz 1200z	06/06	Fair	4m28s	QRM3	PLdn	MON	
14876kHz 1210z	06/06	Fair	4m28s	QRM3	PLdn	MON	
14376kHz 1220z	06/06	Weak	4m28s		PLdn	MON	
13976kHz 1230z	06/06	Fair	4m28s		PLdn	MON	
13376kHz 1240z	06/06	Weak	4m28s	QRM3	PLdn	MON	
12176kHz 1250z	06/06	Weak	4m28s		PLdn	MON	

15876kHz	1200z	11/06	Weak	4m28s	PLdn	SAT
14876kHz	1210z	11/06	Weak	4m28s	PLdn	SAT
14376kHz	1220z	11/06	Weak	4m28s	PLdn	SAT
13976kHz	1230z	11/06	Weak	4m28s	PLdn	SAT
13376kHz	1240z	11/06	Weak	4m28s	PLdn	SAT
12176kHz	1250z	11/06	Weak	4m28s	PLdn	SAT

15876kHz	1200z	13/06	Weak	1m40s	PLdn	MON
14876kHz	1210z	13/06	Weak	1m40s	PLdn	MON
14376kHz	1220z	13/06	Weak	1m40s	PLdn	MON
13976kHz	1230z	13/06	Weak	1m40s	PLdn	MON
13376kHz	1240z	13/06	NRH		PLdn	MON
12176kHz	1250z	13/06	Weak	1m40s	PLdn	MON

OFF WATCH SATURDAY 18th June 2022

15876kHz	1200z	20/06	Weak	4m28s	PLdn	MON
14876kHz	1210z	20/06	Weak	4m28s	PLdn	MON
14376kHz	1220z	20/06	Weak	4m28s	PLdn	MON
13976kHz	1230z	20/06	Weak	4m28s	PLdn	MON
13376kHz	1240z	20/06	NRH		PLdn	MON
12176kHz	1250z	20/06	Weak	4m28s	PLdn	MON

15876kHz	1200z	25/06	V.weak	4m28s	PLdn	SAT
14876kHz	1210z	25/06	V.weak	4m28s	PLdn	SAT
14376kHz	1220z	25/06	Weak	4m28s	PLdn	SAT
13976kHz	1230z	25/06	Weak	4m28s	PLdn	SAT
13376kHz	1240z	25/06	Weak	4m28s	PLdn	SAT
12176kHz	1250z	25/06	Weak	4m28s	PLdn	SAT

QRM3

15876kHz	1200z	27/06	Unworkable		PLdn	MON
14876kHz	1210z	27/06	Unworkable		PLdn	MON
14376kHz	1220z	27/06	Unworkable		PLdn	MON
13976kHz	1230z	27/06	Unworkable		PLdn	MON
13376kHz	1240z	27/06	V.weak	1m40s	PLdn	MON
12176kHz	1250z	27/06	V.weak	1m40s	PLdn	MON

Poor conditions throughout schedule

WED/SAT

May 2022

With my family issues intervening with my collections Ary kindly put up the change of frequency:

13961	04-05-2022	1100	XPB1	MFSK-16	Russian intel.
13361	04-05-2022	1110	XPB1	MFSK-16	Russian intel.
12161	04-05-2022	1120	XPB1	MFSK-16	Russian intel.
11461	04-05-2022	1130	XPB1	MFSK-16	Russian intel.
10761	04-05-2022	1140	XPB1	MFSK-16	Russian intel.
10161	04-05-2022	1150	XPB1	MFSK-16	Russian intel.

07/05 NOT MONITORED

13961kHz	1100z	11/05	Weak	4m28s	PLdn	WED
13361kHz	1110z	11/05	Weak	4m28s	PLdn	WED
12161kHz	1120z	11/05	Weak	4m28s	PLdn	WED
11461kHz	1130z	11/05	Weak	4m28s	PLdn	WED
10761kHz	1140z	11/05	Unworkable		PLdn	WED
10161kHz	1150z	11/05	Unworkable		PLdn	WED

13961kHz	1100z	14/05	Weak	4m28s	PLdn	SAT
13361kHz	1110z	14/05	Weak	4m28s	PLdn	SAT
12161kHz	1120z	14/05	Weak	4m28s	PLdn	SAT
11461kHz	1130z	14/05	Weak	4m28s	PLdn	SAT
10761kHz	1140z	14/05	Weak	4m28s	PLdn	SAT
10161kHz	1150z	14/05	NRH		PLdn	SAT

13961kHz	1100z	18/05	NRH		PLdn	WED
13361kHz	1110z	18/05	Weak	2m15s	PLdn	WED
12161kHz	1120z	18/05	Weak	2m15s	PLdn	WED
11461kHz	1130z	18/05	Weak	2m15s	PLdn	WED
10761kHz	1140z	18/05	NRH		PLdn	WED
10161kHz	1150z	18/05	NRH		PLdn	WED

13961kHz	1100z	21/05	Weak	2m15s	PLdn	SAT
13361kHz	1110z	21/05	Weak	2m15s	PLdn	SAT
12161kHz	1120z	21/05	Weak	2m15s	PLdn	SAT
11461kHz	1130z	21/05	Weak	2m15s	PLdn	SAT
10761kHz	1140z	21/05	Weak	2m15s	PLdn	SAT
10161kHz	1150z	21/05	NRH		PLdn	SAT

13961kHz	1100z	25/05		Unworkable		PLdn	WED
13361kHz	1110z	25/05	Weak	4m28s QRM3		PLdn	WED
12161kHz	1120z	25/05	Weak	4m28s QSB4		PLdn	WED
11461kHz	1130z	25/05		Unworkable		PLdn	WED
10761kHz	1140z	25/05		Unworkable		PLdn	WED
10161kHz	1150z	25/05	NRH			PLdn	WED
13961kHz	1100z	28/05	Weak	4m28s QSB4	Poor HF Condx throughout	PLdn	SAT
13361kHz	1110z	28/05	Very weak	4m28s		PLdn	SAT
12161kHz	1120z	28/05	Weak	4m28s		PLdn	SAT
11461kHz	1130z	28/05	Weak	4m28s		PLdn	SAT
10761kHz	1140z	28/05	Weak	4m28s		PLdn	SAT
10161kHz	1150z	28/05	Weak	4m28s		PLdn	SAT

June 2022

Wed 01.06.2022 1100Z 13876 msg 4:30 From H-FD

Wed 01.06.2022 1110Z 13376 msg

Wed 01.06.2022 1120Z 12176 msg

Wed 01.06.2022 1130Z 11576 msg

Wed 01.06.2022 1140Z 10676 msg

Wed 01.06.2022 1150Z 12076 msg

13876kHz	1100z	04/06		Unworkable, variable conditions		PLdn	SAT
13376kHz	1110z	04/06		Unworkable, variable conditions		PLdn	SAT
12176kHz	1120z	04/06		Unworkable, variable conditions		PLdn	SAT
11576kHz	1130z	04/06		Unworkable, variable conditions		PLdn	SAT
10676kHz	1140z	04/06		Unworkable, variable conditions		PLdn	SAT
10276kHz	1150z	04/06		Unworkable, variable conditions		PLdn	SAT

13876kHz	1100z	08/06	Weak	4m28s		PLdn	WED
13376kHz	1110z	08/06	Weak	4m28s		PLdn	WED
12176kHz	1120z	08/06	Weak	4m28s QRM3		PLdn	WED
11576kHz	1130z	08/06	Weak	4m28s QRM4		PLdn	WED
10676kHz	1140z	08/06	NRH			PLdn	WED
10276kHz	1150z	08/06	NRH			PLdn	WED

13876kHz	1100z	11/06	Weak	4m28s		PLdn	SAT
13376kHz	1110z	11/06	Weak	4m28s		PLdn	SAT
12176kHz	1120z	11/06	Weak	4m28s		PLdn	SAT
11576kHz	1130z	11/06	NRH			PLdn	SAT
10676kHz	1140z	11/06	Weak	4m28s		PLdn	SAT
10276kHz	1150z	11/06	NRH			PLdn	SAT

13876kHz	1100z	15/06	Weak	4m28s		PLdn	WED
13376kHz	1110z	15/06	Weak	4m28s		PLdn	WED
12176kHz	1120z	15/06	Fair	4m28s		PLdn	WED
11576kHz	1130z	15/06	Weak	4m28s		PLdn	WED
10676kHz	1140z	15/06	Weak	4m28s		PLdn	WED
10276kHz	1150z	15/06	Weak	4m28s		PLdn	WED

OFF WATCH SATURDAY 18th June 2022

13876kHz	1100z	22/06	Fair	4m28s		PLdn	WED
13376kHz	1110z	22/06	Weak	4m28s		PLdn	WED
12176kHz	1120z	22/06	Weak	4m28s		PLdn	WED
11576kHz	1130z	22/06	Weak	4m28s		PLdn	WED
10676kHz	1140z	22/06	V.weak	4m28s		PLdn	WED
10276kHz	1150z	22/06	NRH			PLdn	WED

13876kHz	1100z	25/06	Weak	2m26s? QRM3		PLdn	SAT
13376kHz	1110z	25/06	Weak	2m26s?		PLdn	SAT
12176kHz	1120z	25/06	Weak	2m26s?		PLdn	SAT
11576kHz	1130z	25/06	V.weak	2m26s?		PLdn	SAT
10676kHz	1140z	25/06	NRH			PLdn	SAT
10276kHz	1150z	25/06	NRH			PLdn	SAT

13876kHz	1100z	29/06	Weak	2m26s		PLdn	WED
13376kHz	1110z	29/06	Weak	2m26s		PLdn	WED
12176kHz	1120z	29/06	Weak	2m26s		PLdn	WED
11576kHz	1130z	29/06	Weak	2m26s		PLdn	WED
10676kHz	1140z	29/06	NRH			PLdn	WED
10276kHz	1150z	29/06	NRH			PLdn	WED

Other XPB1 fm H-FD:

Tue 03.05.2022 0500Z 13435 msg 4:29
Tue 03.05.2022 0510Z 13935 msg
Tue 03.05.2022 0520Z 14435 msg
Tue 03.05.2022 0530Z 14835 msg
Tue 03.05.2022 0540Z 15935 msg
Tue 03.05.2022 0550Z 16235 msg

Tue 07.06.2022 0500Z 11559 msg 1:32
Tue 07.06.2022 0510Z 12159 msg
Tue 07.06.2022 0520Z 13459 msg
Tue 07.06.2022 0530Z 13959 msg
Tue 07.06.2022 0540Z 14459 msg
Tue 07.06.2022 0550Z 14959 msg

Tones, Hybrids and FSK

F01/F06 [From Ary & tiNG]

11414 24-05-2022 1015 F01 FSK 200/500 Russian diplo/intel.
9317 24-05-2022 1025 F01 FSK 200/500 Russian diplo/intel.
7572 24-05-2022 1035 F01 FSK 200/500 Russian diplo/intel.

94051 10934 67293 59950 58011 49661 76983 95582 06756 19639
24829 58111 03375 60013 00104 36552 81201 53733 73967 43805
65265 03565 23311 54642 55957 19147 09784 19563 92081 01019
43673 02975 35493 32557 87346 19123 44506 15760 77920 64216
28260 11819 73864 68173 99222 72409 55213 14448 66036 72646
32082 01344 33872 81630 41169 43284 04503 31540 34934 35448
93261 71182 93137 30235 05087 14968 11438 98974 36833 23223
46718 77329 98044 74793 23845 76075 00000 00000 00000 00000

35598 13535 65575 07295 97248 47557 95667 13431 85089 66616
60461 35966 45979 88972 46058 54412 97460 77312 15769 09717
41228 99851 84377 19327 57166 94269 06561 63045 51389 01660
15407 19375 56725 62696 71970 57043 09074 93185 11801 11390
48086 81202 99377 00296 15597 73003 26397 59366 50244 39883
14842 01026 01725 43187 10771 27233 13109 39652 79778 50495
44666 94266 40038 02872 37622 92835 93892 37652 41311 71443
43910 53396 52124 04999 04355 95030 37728 22046 44000 11674
44969 77081 00000 ++++ +++++

11414 25-05-2022 1015 F01 FSK 200/500 Russian diplo/intel.
9317 25-05-2022 1025 F01 FSK 200/500 Russian diplo/intel. [also via tiNG]
7572 25-05-2022 1035 F01 FSK 200/500 Russian diplo/intel.

73905 73457 25246 71645 52470 83460 11447 35046 88771 48094
83367 03920 07132 48033 14658 72959 88211 97587 06934 75510
00082 18825 54101 73946 93846 38437 20449 18894 43508 05800
24704 38236 34751 55659 47225 41847 32344 63895 02531 52977
80846 69771 44346 02248 18292 63144 95361 45168 07558 60038
18878 89135 15095 15043 74537 40838 91705 43963 25327 10011
35064 55161 88036 30473 38657 13029 44357 84391 56846 82019
54818 40700 40723 24694 42742 43620 24456 52198 40404 12215
66809 50629 14585 36915 77537 31708 13715 83959 83312 81213
03774 43676 12901 03606 85158 83555 06267 86276 07693 92040
77282 31866 25964 23983 84746 32087 62186 83687 91381 81490
68766 06507 15515 54601 07766 24890 05123 94882 89445 29861
88917 88947 37075 63824 84183 24460 70209 05675 66033 55174
23598 34119 27772 21526 43934 80156 87074 00241 31620 04665
17642 81379 19743 62016 11035 96258 07441 35667 98373 44691
89849 56655 86584 94982 51831 40950 88892 55115 17640 06585
54224 38558 73750 56511 25245 73155 07008 38115 79676 26505
25300 15329 34621 46287 52942 14280 18543 38968 17942 28413
40628 35321 73364 94017 12192 16204 19953 72111 99815 97021
22212 97600 14920 94325 35138 81667 69444 22973 83775 78316
52336 97293 62794 51019 06515 34697 48282 00394 11024 85159
38917 38857 98037 35022 68736 23187 59428 58554 58664 80930
22558 15697 99002 91601 00011 19438 80064 08599 42928 21260
13141 32778 52648 88083 08983 73636 30334 69156 05995 59017
69276 76323 65324 79292 19563 26106 75025 76962 79793 17042
30502 17589 95533 40717 83399 03029 69203 49917 76145 12878
11065 32359 04322 85082 86020 63411 74057 71647 35899 36273
46625 30373 81912 93014 87433 38575 36980 04947 61605 39707
82602 75736 43316 58832 89971 65723 31103 47884 90013 60850
86305 46641 22034 34675 36846 70373 15673 76880 13526 60076

85844 86718 11031 56244 45355 54850 90830 82120 64875 81981
68159 47346 34981 07771 50267 07970 09913 48417 18127 43734
37771 66383 68786 38589 06831 20678 60554 75357 62638 71152
28203 80514 75618 35228 60379 79980 63838 20509 56408 51909
00650 81709 04686 87367 61869 75338 49829 94870 92208 10565
40796 09709 95618 19728 77139 93980 79260 96897 95601 38304
05763 77954 64222 01112 33478 60596 76153 46490 49413 87731
60378 66485 24515 42694 51495 98820 46018 29697 85789 75969
06526 37993 15749 66496 54510 13156 60230 94640 35942 83927
32454 49044 81702 18076 13024 16585 20497 05683 60148 02246
21939 93324 74259 20952 99495 17559 59210 72320 27992 78409
00000 +++++ +++++ +++++

F06 12211,0 kHz 1400z 21.05. [data] 1407z QSA5 QRM1 QRN1 QSB2 tiNG-Twente SAT
F06 10576,0 kHz 1410z 21.05. [data] 1417z QSA5 QRM1 QRN1 QSB2 tiNG-Twente SAT
F06 8075,0 kHz 1420z 21.05. [data] 1427z QSA3 QRM1 QRN2 QSB2 tiNG-Twente SAT

F06 13396,0 kHz 1030z 22.05. [data] 1037z QSA5 QRM1 QRN1 QSB1 tiNG-Twente SUN
F06 11123,0 kHz 1040z 22.05. [data] 1047z QSA5 QRM1 QRN1 QSB1 tiNG-Twente SUN
F06 9089,0 kHz 1050z 22.05. [data] 1057z QSA4 QRM1 QRN1 QSB2 tiNG-Twente SUN

11163 24-05-2022 0700 F06 FSK 200/1000 Russian diplo/intel
9271 24-05-2022 0710 F06 FSK 200/1000 Russian diplo/intel.
7532 24-05-2022 0720 F06 FSK 200/1000 Russian diplo/intel.

11166 70202 64971 23008 01679
59850 01999 70937 84579 12310 47411 24437 38457 84576 78109
99643 97596 68361 00273 40622 23119 48254 06752 36109 56147
92052 22445 15162 39796 79465 41573 02280 38526 17634 99035
42932 09550 16905 43039 35442 05971 25304 01172 30145 16358
45123 57142 81776 70428 80086 80329 66022 65523 86517 75367
96157 93586 26941 43926 00732 73311 49576 75896 48216 17146
42133 12151 29566 87857 33371 46075 34636 24336 40848 56057
83367 41312 88295 86120 97714 32700 41063 16892 25214 33236
33062 94083 50166 18108 83659 06687 53343 45254 27941 32058
06175 70037 08796 90089 10338 86952 04255 73644 18700 78092
88518 47454 98547 73022 50116 32658 23033 49780 15632 19175
01780 31665 52427 73092 86597 59531 48817 31271 13218 44237
95114 00329 65011 28976 13998 02224 69609 16147 13627 33596
64381 38466 61955 31065 91688 79007 05672 59683 09867 69849
82200 66707 30864 24032 98214 67901 20480 80491 73085 58536
22141 66681 70713 66292 90142 08550 68175 88239 43306 42568
34619 79090 74986 09500 18863 08165 00000

11166 70202 15462 23009 01579
46725 45657 60408 61611 64752 90513 16806 96640 67514 54413
46790 99305 45999 79955 76723 43178 51928 20065 17782 91935
17628 81074 00136 63978 47866 25670 06435 93627 94605 90392
78055 56100 50597 97377 92533 48431 22767 65012 35633 43543
71316 47214 16469 59654 25492 56009 99149 12198 11946 47094
49347 40452 56634 73082 19256 26064 46191 34103 19362 45658
59703 80457 50467 24708 06846 47014 94408 84873 33291 24027
86903 01975 79347 94066 20957 16804 02755 89755 54283 65949
01580 51988 19161 24840 98144 93326 58166 80167 69929 96264
34230 73901 38385 01037 88441 86073 51590 62667 44048 48515
21702 81949 80076 06739 03117 40028 23035 72156 22305 91292
30102 31813 95230 94255 62269 07832 93316 85103 70858 83744
43874 23617 45853 39917 75949 66132 99487 65233 47514 45254
83528 37243 14941 60984 63675 87947 30700 12965 99545 97428
80225 28526 03643 82481 93864 66218 77781 72471 94872 99525
50386 89567 69380 10434 63103 09155 00000

10523 24-05-2022 1200 F06 FSK 200/1000
8129 24-05-2022 1210 F06 FSK 200/1000
6947 24-05-2022 1220 F06 FSK 200/1000

Russian diplo/intel. 11166 70202 64971 23008 01679 and 11166 70202 15462 23009 01579

17420 25-05-2022 0600 F06 FSK 200/1000 Russian diplo/intel.
15673 25-05-2022 0610 F06 FSK 200/1000 Russian diplo/intel.
13361 25-05-2022 0620 F06 FSK 200/1000 Russian diplo/intel.

11166 40122 31648 21002 03839
85329 17584 10195 64451 89226 92994 98442 19366 20753 78268
77375 48624 98905 22756 40598 29502 31318 45947 67174 40400
00412 86974 62906 35994 82847 20629 34135 84962 81969 38301
86238 31270 77914 17321 64035 64904 25097 27096 76265 13038
51737 45518 71342 87530 41128 84050 56556 49716 99331 44948
77930 78415 38984 59048 02905 52109 33907 77558 73036 81204
24201 16289 18917 51342 76518 75763 54471 63671 29199 85648
92850 83038 76957 46934 51085 30021 74808 70305 35700 77748
65911 34143 26474 39445 63042 10596 00530 57632 38352 33150
63942 30927 01121 04143 83060 39383 68188 65653 32713 54295
56743 82215 03508 43417 54165 08775 35390 07530 44611 42349
69667 09292 97012 80804 36669 80314 44204 37212 21249 17394
07839 83193 73295 03845 48801 19723 55463 16866 47786 98795
45280 06881 45754 44419 33859 59785 98924 46359 88356 78050
28014 25071 70407 41597 66401 91268 27692 34408 36900 48551
00840 47788 11839 12540 12852 96233 36125 44951 33232 06824
17985 26057 34007 68094 17071 13949 79838 49320 84610 64070
19395 26143 35308 07426 70185 73481 55657 10934 14034 11675
78373 68333 45396 16773 77634 95101 39680 30934 64790 25811
33786 33854 89271 37365 36039 61167 74341 46553 07696 80759
42414 55351 83231 62927 09597 42427 21575 05324 54172 24259
05496 98626 88682 34338 31319 43866 90319 93854 56158 57348
69306 72347 94858 24118 79942 61713 83835 85891 04030 12044
53990 74402 61335 02712 79900 26086 26795 47152 97465 39064
59152 54768 07194 58337 70694 98407 05327 00150 92804 60839
09981 51439 16994 58671 74492 05336 16110 67155 05166 18623
75410 94295 25594 02112 88187 77720 54753 79865 95631 02742
91057 78205 75612 65047 19554 30443 10090 26450 84447 08267
85807 37155 94152 15734 07988 22953 51046 06793 31696 60807
23115 12278 40570 91245 99691 87313 27600 41009 98449 15074
57645 54399 15864 27815 16384 56743 38316 31142 75363 98432
56022 42425 27862 52966 46992 79322 75235 67427 23188 59337
68438 88849 56079 96335 34409 14893 23782 04995 42008 42273
46964 49081 87191 11389 05712 94520 02109 70566 54533 53195
17821 08386 77705 28393 35313 27498 52129 97857 84495 58389
09900 95376 75883 36523 17765 76840 74640 91299 15674 81707
51666 20271 81584 25821 91433 47038 14737 86513 61240 86290
54569 65927 71581 64403 77462 43502 82318 69040 38507 53551
34340 02381 00000

11163 25-05-2022 0700 F06 FSK 200/1000 Russian diplo/intel.
9271 25-05-2022 0710 F06 FSK 200/1000 Russian diplo/intel.
7532 25-05-2022 0720 F06 FSK 200/1000 Russian diplo/intel.
10523 25-05-2022 1200 F06 FSK 200/1000 Russian diplo/intel.
8129 25-05-2022 1210 F06 FSK 200/1000 Russian diplo/intel.
6947 25-05-2022 1220 F06 FSK 200/1000 Russian diplo/intel.

11166 70202 96358 24010 02519
09052 39513 29172 19602 84430 06843 09703 00170 69317 03914
70242 38846 42878 74081 40232 21194 99703 99169 48110 60954
41289 25591 95641 90470 21898 62436 92120 50425 91016 62473
03117 52335 99565 21994 93463 12239 62086 60446 69172 79008
92053 65792 47953 05730 52534 16521 13049 37590 89356 16262
30044 14701 38991 01934 31361 13303 28324 11367 98109 73789
08517 21328 93996 88981 90125 91908 30964 51089 71689 78178
71263 80816 78956 95081 95633 87012 56940 46475 92289 30347
82003 54278 46386 89409 86138 48651 34671 52702 10654 05144
54995 84936 31429 39763 45371 41093 22955 97877 72274 26669
53315 97919 92867 27555 27327 15795 20841 57975 20000 20965
50549 99940 67524 00122 19144 32629 07965 29401 11371 75160
88844 81060 36740 91176 83813 75576 33744 28678 85590 15086
80810 93554 67352 59109 18690 80246 29781 28504 13942 07962
75927 48569 18237 35909 81111 67256 03141 55967 50013 09407
75070 86232 78167 52972 00118 13885 60043 38134 93426 60805
10881 45278 52802 70387 94500 02753 41247 38977 74244 10347
48118 40376 29254 89434 83572 16853 03272 95707 86010 35095
78140 55453 47193 30534 89206 11296 84716 88497 24802 88358
16547 35607 76988 16762 17287 39869 35774 71413 60869 42894
43958 15022 79363 72688 54820 55266 92587 10438 59821 52066
88200 09746 78515 35886 56975 91744 27858 23012 12936 64515
13088 38739 53044 40280 07388 84407 36120 48765 12498 09221
85698 70209 17474 72789 46485 36428 97778 09333 49129 73387
21891 29483 62968 83718 57622 20616 41464 92605 95329 10249
00000

HM01

The first new groups and files since April 24th presented by Ary

11435kHz 12-06-2022 1630z HM01 AM/WinDRM

Groups

11055 53571 51544 46323 70622 57553

Files sent

64111105.TXT
70205357.TXT
20325154.TXT
47014632.TXT
50417062.F1C
41575755.TXT

11435kHz 30-06-2022 1605z HM01 AM/WinDRM New groups and files Ary THU

Groups

02644 71262 10774 07441 68501 41811

Files

50360264.F1C
22067126.TXT
42571077.TXT
80270744.TXT
52746850.TXT
23554181.TXT

X06 Mazielka (1c) logs section

Date	Day	UTC	Freq	Scale	Monitor	Comments
20220504	Wed	0828-0835	14631	362154	Andrew/SE	TX to Athens, G32 (SDR)
20220504	Wed	1118	16115	215346	Dave/AU	Alert 1 (TX to Mumbai, G25)1 (SDR)
20220504	Wed	1123	16115	215346	Dave	1.2 (SDR)
20220504	Wed	1124-1132	16115	215346	Dave	1.3 (SDR) (1)
20220504	Wed	1226-1230	17506	231654	Dave	TX to Abuja, G422 (SDR)
20220505	Thu	0712-0715	19511	314265	Andrew	TX to Antananarivo, G380 (SDR)
20220505	Thu	0720-0726	14447	162543	Andrew	TX to Nicosia, G39 (SDR)
20220505	Thu	0743-0751	16132	352416	Andrew	Alert 3 (Dar es Salaam, G43)1 (SDR)
20220505	Thu	0751-0807	19405	352416	Andrew	3.2 (SDR)
20220505	Thu	0756	18550	123456	Andrew	X06c (SDR)
20220505	Thu	0757	12100	123456	Andrew	X06c (SDR)
20220505	Thu	0807-0828	18575	352416	Andrew	3.3 (SDR)
20220505	Thu	1342-1347	16277	436512	Andrew	TX to Harare, G44 (SDR)
20220506	Fri	0816-0825	12094	324615	Andrew	TX to Madrid, G52 (SDR)
20220506	Fri	1016-1032	14824	625413	Andrew	Alert 2 (Tel Aviv, G56)1 (SDR)
20220506	Fri	1032-1033	13547	625413	EC47A1	2.2 (SDR)
20220511	Wed	0733-0739	10814	412356	Andrew	TX to Budapest, G97
20220511	Wed	0736-0738	20950	435621	Andrew	TX to Maputo, G98
20220511	Wed	0756	17431	1--6--	Andrew	X06b
20220511	Wed	0801	18177	164253	Andrew	Short TX to Addis Ababa, G395
20220511	Wed	0805-0809	11153	465132	Andrew	TX to Sofia, G100
20220511	Wed	0805-0809	13441	263145	Andrew	TX to Prague, G428
20220512	Thu	0747-0751	7988	561243	Andrew	TX to Helsinki, G117
20220512	Thu	0807-0809	16153	153624	Andrew	TX to Damascus, G249
20220512	Thu	0937	16246	164532	Andrew	Alert2 (TX to Dublin, G106)1 Shortie
20220512	Thu	0940-0948	13506	164532	Andrew	2.2
20220516	Mon	0652-0658	13452	165324	Dave, PoSW	TX to Vienna, G145(2)
20220516	Mon	0712-0725	10175	263514	Andrew, Ary	Alert 2 (G425) 1
20220516	Mon	0726-0730	12133	263514	Andrew	2.2
20220516	Mon	0734-0739	12152	432516	Dave	TX to Bern, G341 (SDR)
20220516	Mon	0813-0816	14392	532614	Dave, Ary/NL	TX to Paris, G147
20220517	Tue	0800	12174	154632	Andrew	Alert 2 (G427) 1 (SDR)
20220517	Wed	0803-0817	14765	154632	Andrew	2.2 (SDR)
20220517	Tue	0815-0822	11462	165423	Andrew, Ary	TX to Brussels, G151(3)
20220517	Tue	0845-0853	15687	154263	Andrew	TX to Rome, G148(4)
20220517	Tue	0925-0934	20336	246531	Andrew, Ary	Alert 3 (TX to Accra, G153) 1
20220517	Tue	0935-0941	18206	246531	Andrew	3.2
20220517	Tue	0941-0948	17421	246531	Andrew	3.3

20220517	Tue	1148-1205	18523	325614	Andrew,Dave	TX to Nairobi, G400 (SDR)
20220518	Wed	0814	17431	61-616	Andrew	X06b before XPA2 (tail end)
20220518	Wed	0815	17431	1--6--	Andrew	X06b before XPA2
20220518	Wed	1120-1123	14650	215346	Dave	Alert1 (TX to Mumbai,G167)1(SDR)
20220518	Wed	1125-1129	14650	215346	Dave	1.2 (SDR)
20220518	Wed	1128-1134	16115	214356	Dave	TX to Amman, G394 (SDR)(5)
20220519	Thu	0742-0745	21852	314265	Andrew	TX to Antananarivo, G178
20220519	Thu	0930-0944	18197	645321	Andrew	Alert 2 (Ho Chi Minh City, G417) 1
20220519	Thu	0944-0949	20837	645321	Andrew	2.2
20220519	Thu	0951-1004	18575	352416	Ary, Andrew	Alert2 (Dar es Salaam,G179(1 I.p.
20220519	Thu	1005-1111	19405	352416	Andrew	2.2 Very long (SDR)
20220523	Mon	0826-0832	11537	421635	Andrew	TX to Oslo, G220
20220523	Mon	0838-0856	17475	156234	Andrew	TX to Kampala, G203
20220523	Mon	0932-0936	16117	463125	Ary, Dave	TX to Rabat, i. p., G222
20220523	Mon	1244-1251	15656	364152	Andrew	Alert 2 (TX to New Delhi, G73) 1
20220523	Mon	1252-1253	13467	364152	Andrew	2.2
20220524	Tue	0450	14835	341265	Andrew	R
20220524	Tue	0807-0810	13420	534216	Ary, Andrew	TX to Bagdad, G232
20220524	Tue	0815-0819	17523	542136	Andrew, Ary	TX to Beijing, i. p., G88
20220524	Tue	1007-1010	16317	612534	Dave, Ary	TX to Ashgabat, i. p., G234
20220524	Tue	1020-1047	20813	216354	Andrew, Ary	TX to Chennai, i. p., G228
20220525	Wed	0739-0748	10814	412356	Andrew	TX to Budapest, G243
20220525	Wed	0747	13934	1--6--	Andrew	X06b
20220525	Wed	0748	15841	1--6--	Schorschi	X06b i. p. with S9 (6 rounds)(6)
20220525	Wed	0859-0907	11561	263145	Andrew	TX to Prague, G435
20220526	Thu	0657	13431	1--6--	Andrew	X06b before XPA1
20220526	Thu	0657-0700	13854	521634	Andrew	TX to Bucharest, G261
20220527	Fri	0456-0503	13510	216435	Andrew	TX to Dhaka, G336
20220527	Fri	0832-0841	12177	356412	Andrew	Alert 7 (TX to Berlin, G271) 1
20220527	Fri	0841-0859	10653	356412	Andrew	7.2
20220527	Fri	0859-0912	9288	356412	Andrew	7.3
20220527	Fri	0912-0921	12177	356412	Andrew, Ary	7.4
20220527	Fri	0921-0934	10653	356412	Ary	7.5
20220527	Fri	0940	10653	356412	Ary	7.6
20220601	Wed	0642-0703	12150	256341	Andrew	Alert 1 (TX to Beirut, G311) 1
20220601	Wed	0707-0709	12150	256341	Andrew	1.2
20220601	Wed	0834-0840	14631	362154	Andrew	TX to Athens, G32
20220601	Wed	1104-1112	16115	215346	Dave, Ary	Alert 1 (TX to Mumbai, G25) 1
20220601	Wed	1119-1122	16115	215346	Dave	1.2
20220601	Wed	1236-1240	17506	231654	Dave	TX to Abuja, G422
20220602	Thu	0721-0723	19511	314265	Andrew	TX to Antananarivo, G380
20220602	Thu	0733-0734	13448	162543	Andrew	TX to Nicosia, G39
20220602	Thu	0838-0857	14950	352416	Andrew, Ary	Alert 2 (Dar es Salaam, G43)1
20220602	Thu	0857-0859	19405	352416	Andrew	2.2
20220602	Thu	0927-0929	18197	645321	Andrew	TX to Ho Chi Minh City, G410
20220603	Fri	0827-0835	14570	324615	Andrew	TX to Madrid, G52
20220603	Fri	1026-1038	13547	625413	Andrew,	
				beyonderisme		TX to Tel Aviv, G56
20220604	Sat	0758	12227	1--6--	Andrew	X06b
20220606	Mon	0614	13448	1--6--	Andrew	X06b
20220606	Mon	0653-0656	13452	165324	Dave	TX to Vienna, G1
20220606	Mon	0745-0749	12152	432516	Dave	TX to Bern, G6
20220606	Mon	0840-0842	14392	532614	Dave	TX to Paris, G4
20220606	Mon	1422	14892	1--6--	Schorschi	X06b before XPA2 with S9
20220607	Tue	0757	11431	1--6--	Andrew	X06b
20220607	Tue	0855-0900	14615	125643	Vladdi, Dave	TX to Ulanbatar, G317
20220608	Wed	0737-0743	18591	435621	Andrew	TX to Maputo, G98
20220608	Wed	0752-0754	10814	412356	Andrew	TX to Budapest, G97
20220608	Wed	0758	11250	1-----	Andrew	X06d
20220608	Wed	0801	18177	164253	Andrew	TX to Addis Ababa
20220608	Wed	0809-0817	13419	465132	Andrew	TX to Sofia, G100
20220608	Wed	0813	14880	1-----	Andrew	X06d
20220608	Wed	0815-0821	13441	263145	Andrew	TX to Prague, G428
20220608	Wed	1017	12176	1-----	Andrew	X06d before XPB1
20220609	Thu	0746-0755	7988	561243	Andrew	Alert 2 (TX to Helsinki, G117) 1
20220609	Thu	0755-0805	9065	561243	Andrew	2.2
20220609	Thu	0808-0812	16153	153624	Andrew	TX to Damascus, G249
20220609	Thu	0951-0956	13506	164532	Andrew	TX to Dublin, G106
20220609	Thu	1051	10560	6--132	Andrew	X06b test
20220609	Thu	1059	10550	6--132	Andrew	X06b test
20220609	Thu	1113-1128	23856	6--132	Coffee3,	
				Radiotehnika		X06b test(7)
20220609	Thu	1201	13923	1--6--	Andrew	X06b
20220609	Thu	1207-1208	13923	1--6--	Radiotehnika	X06b
20220613	Mon	1113	13376	1--6--	Andrew	X06b before XPB1

20220614	Tue	0759-0803	13420	534216	Andrew	TX to Baghdad, G87
20220614	Tue	0818-0827	17253	542136	PoSW, Andrew	Alert 2 (TX to Beijing, G88) 1
20220614	Tue	0828-0834	14861	542136	Andrew	2.2
20220615	Wed	0754	14054	1--6--	Andrew	X06b
20220616	Thu	1332-1336	17468	436512	Andrew	TX to Harare, G180
20220617	Fri	1113-1120	14824	625413	Andrew	TX to Tel Aviv, G193
20220620	Mon	0704-0710	11638	165324	Andrew	TX to Vienna, G145
20220620	Mon	0716-0723	10175	263514	Andrew, Dave	Alert 2 (G425) 1
20220620	Mon	0724-0727	13415	263514	Andrew,	
					Vladdi	2.2
20220620	Mon	0756-0759	12152	432516	Ary, Andrew,	
					Vladdi	TX to Bern, G341
20220621	Tue	0819-0831	14615	125643	Ary, Andrew	TX to Ulanbatar, G383
20220621	Tue	0827-0836	12157	165423	Ary, Andrew	TX to Brussels, G151
20220621	Tue	0835	12100	123456	Vladdi	X06c
20220622	Wed	0736-0742	9061	412356	Andrew, Ary	TX to Budapest, G243
20220622	Wed	0743-0754	20950	435621	Andrew	TX to Maputo, G244
20220622	Wed	0802-0818	18177	164253	Andrew, Ary	TX to Addis Ababa, G402
20220622	Wed	0808-0809	13419	465132	Andrew	TX to Sofia, G246
20220622	Wed	0901-0913	13985	134265	Andrew	TX to Tunis, G90
20220624	Fri	0522-0525	13510	216435	Andrew	TX to Dhaka, G336
20220627	Mon	0810-0823	10127	421635	Andrew	TX to Oslo, G220
20220627	Mon	0824-0847	17475	156234	Andrew	Alert 7 (TX to Kampala, G203) 1
20220627	Mon	0847-0938	20690	156234	Andrew, Dave,	
					Ary	7.2 Very long
20220627	Mon	0940-1110	20690	156234	Dave	7.3 Longer!
20220627	Mon	0935-0938	16117	463125	Dave	TX to Rabat, G222
20220627	Mon	1252-1256	15656	364152	Andrew, Dave	Alert 2 (TX to New Delhi, G73) 1
20220627	Mon	1257-1305	13467	364152	Dave	2.2
20220628	Tue	0822-0839	14861	542136	radiotehnika	TX to Beijing, G88

- 1) Sporadic on/off
- 2) Interference from rapidly swept carrier
- 3) Carrier out at 0830
- 4) Carrier out at 0854
- 5) Same scale twice and out of phase briefly
- 6) Not sure about freq
- 7) Break at 1117 UTC

Many thanks to all contributors as usual. Till the next issue I say: Good-bye and stay healthy!

Jochen Schäfer, Numbers-, X06 Database and Teamkopf – since June 29th aged 50!



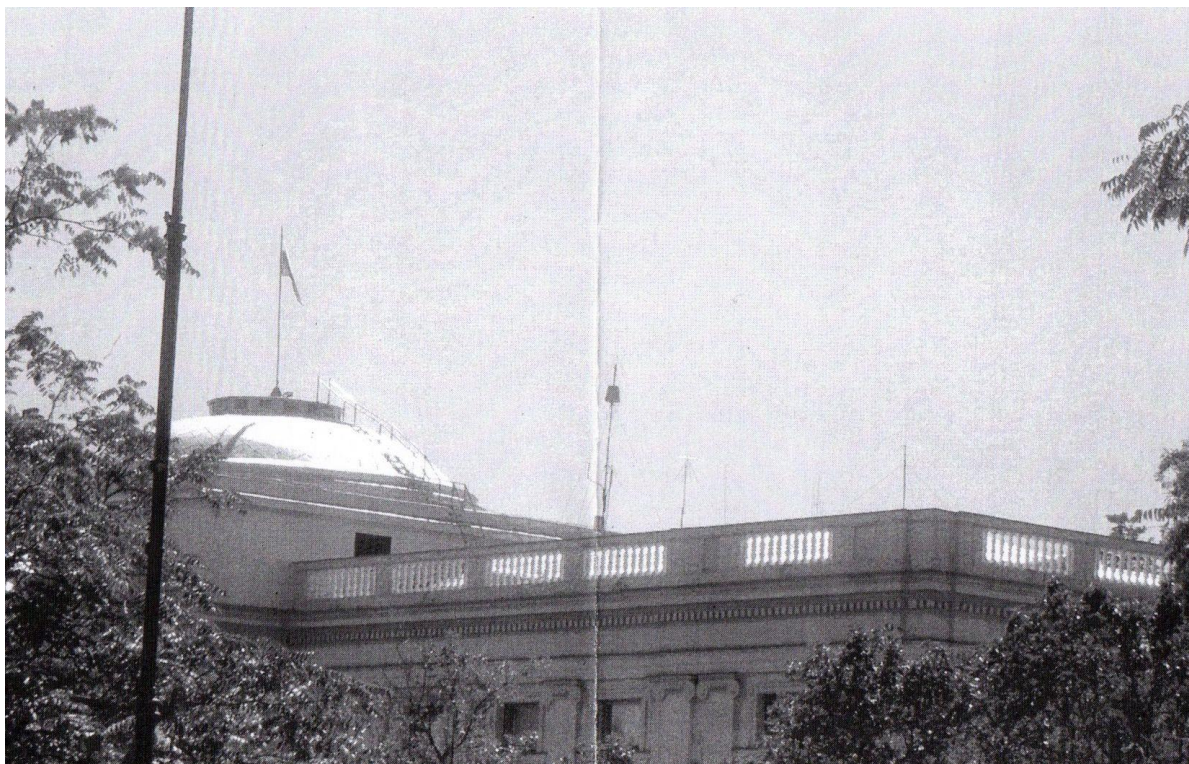
Here's an image sent in by 'E' [thanks] of antennas snapped above Russian Embassy in Warsaw with another later.....

GIZZA JOB!

Well, no job ads at the moment to post. I noticed that I was left out of the Queen's Jubilee Honours List [*including the Platinum Medal I would have been entitled to if this had occurred 22 or so years ago*].

It is interesting to note, and with none of the above levity, 'E' informs me that two of GCHQ's deputy directors, both part timers with young children were honoured – and that's along with the COVID scientist Dr Kerrie Thackray, all by the flexible working foundation 'Timewise.'

Makes a change from blokes who can ride a bike fast being Knighted for singular victories or those who apparently either composed 'music' I suppose.



Another image from the personal files of 'E' [not snapped by him, I might add] and given that from Google Earth his source did so much better!



Chart Section Index

1. Prediction Chart
2. M01 Schedule
3. Family III
4. XPA1 schedule c, XPA1 Wed/Fri
XPA2 schedules m, p and Wed/Fri
5. Special XPA sendings - H-FD [For info only]

July 2022

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Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jul kHz, ID, ...	Aug kHz, ID, ...
x	x	x	x	x			0000		F01	01A	17471	17471
x				x			0025/0035		F01	01A	14878/12185	16023/14373
	x			x			0030/0050/0110		M12	01B	7475/ 8075/ 9275 402	6784/ 8184/ 9384 713
x				x			0125/0135		F01	01A	14878/12185	16023/14373
x	x	x	x	x	x	x	0200		V13	0	9276	9276
x							0210/0310		E06	01A	11632/13827 537	11472/13570 537
x				x			0210/0230/0250		M12	01B	15881/14781/13481 874	12163/11163/19463 114
			x	x			0300/0400		E06	01A	14845/12189 361	14648 /12084 361
x	x	x	x	x	x	x	0300		V13	0	7502	search (15388?)
						x	0300/0320/0340		V07	01B	13521/12121/11421 514	
		x	x				0315		E11	03	14575 25#	14575 25#
x	x	x	x	x	x	x	0400		V13	0		search (15388?)
x	x	x	x	x			0400/0420		S06	01A	11616/ 9322 480	11616/ 9322 480
x							0450		E11	03	7469 41#	7469 41#
x		x		x		x	0455		HM01	18	10860	10860
	x		x		x		0455		HM01	18	11462	11462
x	x	x	x	x	x	x	0500		V13	0		11430
	x		x				0500		S11A	03	15690 38#	15690 38#
x	x						0500/0510/0520 0530/0540/0550		XPB1	01B	11168/11468/12168 13368/13968/14568	11559/12159/13459 13959/14459/14959
x	x	x	x	x			0500/0520		M14	01A	12211/10243 952	12211/10243 952
	x		x				0500/0520/0540		XPA2	01B	search	search
			x	x			0500/0600	1/3	E06	01A	13825/15615 679	13540/16115 210
x		x					0510		S11A	03	13537 65#	13537 65#
	x			x			0530		M01A	14	9441 751	9441 751
		x	x				0530		M01A	14	9129 or 9192 498	9129 or 9192 498
		x	x				0540		M01A	14	7692 536	7692 536
x		x		x		x	0555		HM01	18	10345	10345
	x		x		x		0555		HM01	18	14375	14375
				x		x	0600		E11	03	9150 35#	9150 35#
x	x	x	x	x	x	x	0600		V13	0		11430
	x						0600/0610		S06S	01A	15945/16945 438	15945/16945 438
						x	0600/0620/0640		E07	01B	10317/11117/12217 312	9261/10261/11461 224
	x			x			0620		M01A	14	10233 or 10235 354/458	10233 or 10235 354/458
		x	x				0620		M01A	14	9421 135	9421 135

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jul kHz, ID, ...	Aug kHz, ID, ...
	x			x			0630		M01A	14	9447 143/796	9447 143/796
		x	x				0630		M01A	14	8111 902/536	8111 902/536
x							0630/0640		S06S	01A	16320/14875 462	16320/14875 462
x		x					0640		E11	03	15800 94#	15800 94#
	x		x				0645		E11	03	8091 51#	8091 51#
x		x		x		x	0655		HM01	18	9330	9330
	x		x		x		0655		HM01	18	13435	13435
x			x				0700		S11A	03	9339 47#	9339 47#
	x			x			0700		E11	03	8680 57#	8680 57#
					x	x	0700		E11	03	7377 49#	7377 49#
x	x	x	x	x	x	x	0700		V13	0		18040
						x	0700		M01	01B	6780 025	6780 025
	x						0700/0710		S06S	01A	5430/ 6780 452	5430/ 6780 452
	x			x			0700/0720/0740		E07	01B	15962/17462/18562 945	16246/18446/19246 242
	x		x				0700/0720/0740		M12	01B	10807/10207/ 9207 822	11148/10648/ 9148 161
						x	0700/0720/0740		V07	01B		search
x		x					0700/0720/0740		XPA2	01B	12148/13448/13948	12152/13552/13952
	x			x			0710		M01A	14	10651 297/358	10651 297/358
		x	x				0710		M01A	14	9175 146/208	9175 146/208
	x		x				0710/0730/0750		XPA1	01B	10446/11474/12175	10234/11511/12117
x		x					0715		E11	03	18030 75#	18030 75#
	x			x			0715		E11	03	10429 63#	10429 63#
	x			x			0720		M01A	14	9151 728	9151 728
x	x						0730/0740		S06S	01A	7365/11655 427	7365/11655 427
x		x					0730/0740		S06S	01A	11530/14977 172	11530/14977 172
x			x				0745		E11	03	9610 26#	9610 26#
	x		x				0745		E11	03	14940 22#	14940 22#
		x		x			0745		E11	03	15720 34#	15720 34#
x		x		x		x	0755		HM01	18	9065	9065
	x		x		x		0755		HM01	18	11365	11365
x	x	x	x	x	x	x	0800		V13	0		18040
			x				0800/0810		E17Z	01A	16780/12850/ 217	16780/12850/ 217

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jul kHz, ID, ...	Aug kHz, ID, ...
	x						0800/0810		S06S	01A	14373/12935 127	14373/12935 127
					x		0800/0810	1	S06S	01A	12460/10250 132	12460/10250 132
				x		x	0800/0820/0840		XPA2	01B	search	search
	x	x					0820		E11	03	17378 13#	17378 13#
			x	x			0820		E11	03	4909 43#	4909 43#
x				x			0830		E11	03	15720 18#	15720 18#
					x	x	0830		S11A	03	5149 37#	5149 37#
							0830/0840		S06S	01A	8221/ 9353 764	8221/ 9353 764
x		x					0830/0840		S06S	01A	11565/12560 464	11565/12560 464
				x			0830/0840		S06S	01A	10290/ 9655 156	10290/ 9655 156
x			x	x			0830/0930		S06	01A	15875/13469 842	16327/13875 842
x		x					0845		E11	03	12815 71#	12815 71#
	x		x				0845		E11	03	14972 15#	14972 15#
		x		x		x	0855		HM01	18	9240	9240
	x		x		x		0855		HM01	18	11462	11462
x		x					0900		E11	03	9052 53#	9052 53#
x							0900/0910		S06S	01A	16380/14835 232	16380/14835 232
				x			0900/0910		S06S	01A	6844/ 7161 239	6844/ 7161 239
x		x					0910/0930/0950		XPA2	01B	16296/14981/13953	18059/16093/14874
			x		x		0910/0930/0950		XPA2	01B	13445/12145/11545	14372/13372/12172
x				x			0915		S11A	03	6814 48#	6814 48#
x	x	x	x	x	x	x	0930		M14	01A	16347 617, only 10.+25. when msg repeat 14878 on 11.+26.	16347 617, only 10.+25. when msg repeat 14878 on 11.+26.
		x	x				0930		E11	03	6923 27#	6923 27#
x			x				0930/0940		S06S	01A	9255/10325 698	9255/10325 698
x		x		x		x	0955		HM01	18	9155	9155
	x		x		x		0955		HM01	18	12180	12180
	x			x			1000		E11	03	12153 30#	12153 30#
	x						1000/1010		S06S	01A	4820/ 5660 427	4820/ 5660 427
		x					1000/1010		S06S	01A	14580/16020 276	14580/16020 276
	x	x	x	x			1015/1025/1035		F01	01A	11141/ 9192/ 7363	11076/ 9164/ 7316

Predictions

Ukrainian S06s/E17z skeds w/ grey background

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jul kHz, ID, ...	Aug kHz, ID, ...
x		x					1045		E11	03	8545 69#	8545 69#
	x						1100/1110		S06S	01A	6810/ 7560 265	6810/ 7560 265
		x			x		1100/1110/1110 1130/1140/1150		XPB1	01B	13884/13384/12384 11584/11084/10584	13567/13367/12367 11567/11067/10567
	x		x				1100/1120/1140		XPA2	01B	14958/13958/12158	13887/12187/10387
		x	x				1100/1120/1140		XPA2	01B	17435/16235/14935	16264/15864/14864
			x				1110/1130/1150		M12	01B	13386/12189/11491 725	13386/12189/11491 725
x							1200/1220/1240		M12	01B	14377/13461/12114 317	14377/13461/12114 317
x	x	x	x	x	x	x	1200		V13	0	9276,15890	15890
x							1200/1210		S06S	01A	10230/12165 149	10230/12165 149
x			x				1200/1210		S06S	01A	13145/14535 175	13145/14535 175
x					x		1200/1210/1210 1230/1240/1250		XPB1	01B	15876/14876/14376 13976/13376/12176	15876/14876/14376 13976/13376/12176
		x		x			1200/1220/1240		XPA2	01B		13919/14719/16219
	x	x					1205		E11	03	6304 46#	6304 46#
		x		x			1210/1230/1250		XPA1	01B	13368/12168/11168	13491/12191/10691
x			x				1300		E11	03	5737 31#	5737 31#
x	x	x	x	x	x	x	1300		V13	0	7502,13974	9725
x					x		1300/1320/1340		E07	01B	12176/11576/10276 512	12176/11576/10276 512
	x			x			1400		S11A	03	7772 42#	7772 42#
			x		x		1410/1430/1450		E07	01B	13562/14862/16162 441	13519/14819/15919 288
	x				x		1430		E11	03	12984 91#	12984 91#
					x		1500		M01	14	6435 025	6435 025
					x		1500/1520/1540		XPA2	01B	13954/12154/11454	13825/12125/11025
			x				1530		E11	03	10356 26#	10356 26#
					x	x	1530		E11	03	5082 36#	5082 36#
	x	x	x	x	x	x	1555		HM01	18	11435	11435
x			x				1600/1620/1640		M12	01B	16284/14984/14384 293	16251/14951/14451 294
		x				x	1600/1620/1640		M12	01B	13979/13379/12179 931	14681/13881/13381 683
	x		x				1600/1620/1640		XPA2	01B	13538/14438/14938	14864/14364/13464
	x					x	1605		E11	03	5231 23#	5231 23#
	x		x				1645		E11	03	14575 33#	14575 33#
	x	x	x	x	x	x	1655		HM01	18	11530	11530
		x				x	1700/1720/1740		E07	01B	12223/11023/10123 201	13397/12197/10697 316

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	Jul kHz, ID, ...	Aug kHz, ID, ...
		x		x			1715		E11	03	7863 97#	7863 97#
			x				1730		E11	03	8088 41#	8088 41#
x						x	1745		E11	03	14410 24#	14410 24#
x	x	x	x	x	x	x	1755		HM01	18	11635	11635
	x		x				1800		M01	14	5280 025	5280 025
					x		1800/1820/1840		M12	01B	11435/10598/ 9227 938	11435/10598/ 9227 938
				x		x	1815		E11	03	12229 92#	12229 92#
	x			x			1840/1850/1900	1	F01	01A	14829/12214/10932	15854/13543/11126
		x			x		1850		S11A	03	12457 28#	12457 28#
x			x				1900		E11	03	7600 64#	7600 64#
	x					x	1900/1910/1910 1930/1940/1950		XPB1	01B	14644/13444/12144 11044/10344/ 9244	14918/13918/12218 11118/10218/ 9118
		x					1900/1920/1940		M12	01B	8047/ 6802/ 5788 463	8047/ 6802/ 5788 463
		x		x			1900/1920/1940		M12	01B	search	search
				x			1900/2000	1/3	S06	01A		9912/ 7916 319
		x			x		1910		E11	03	4783 39#	4783 39#
				x		x	1910		E11	03	9610 61#	9610 61#
			x			x	2000		E11	03	5409 52#	5409 52#
	x		x				2000		M01	14	4905 025	4905 025
x			x				2000/2020/2040		M12	01B	12217/10817/ 9317 617	12148/10648/ 9148 374
				x			2000/2100	1/3	S06	01A	9912/ 7916 319	
x		x		x		x	2055		HM01	18	11635	11635
	x		x		x		2055		HM01	18	16180	16180
				x	x		2100/2120/2140		M12	01B	10767/10167/ 9267 712	10314/ 9114/ 8014 310
	x					x	2100/2120/2140		XPA2	01B	13394/12194/10794	12159/11559/10559
		x		x			2100/2120/2140		XPA2	01B	12124/11124/10624	
x			x				2110/2130/2150		M12	01B	13381/12181/10781 317	12214/11014/ 9914 209
x		x		x		x	2155		HM01	18	10715	10715
	x		x		x		2155		HM01	18	17480	17480
		x			x		2210/2230/2250		M12	01B	9284/ 8084/ 7584 295	9052/ 8052/ 6952 992
					x		2230/2240		F01	01A	18562/16218	20283/18397
					x		2330/2340		F01	01A	18562/16218	20283/18397

M01 FREQUENCY LIST

Frequencies may vary by a few kHz

JAN FEB NOV DEC

M01/1

197

DAY	TIME UTC	FREQ kHz
TUE / THU	1800	5320
TUE / THU	2000	4490
SAT	1500	5810
SUN	0700	5465

MAR APRIL SEPT OCT

M01/2

463

DAY	TIME UTC	FREQ kHz
TUE / THU	1800	5475
TUE / THU	2000	5020
SAT	1500	6260
SUN	0700	6510

MAY JUNE JULY AUG

M01/3

025

DAY	TIME UTC	FREQ kHz
TUE / THU	1800	5280
TUE / THU	2000	4905
SAT	1500	6435
SUN	0700	6780

Mon	Tue	Wed	Thu	Fri	Sat	Sun	UTC	wk	Stn	Fam	May kHz, ID, ...	Jun kHz, ID, ...	Jul kHz, ID, ...	Aug kHz, ID, ...	Remarks
		x	x				0315		E11	03	8565 25#	14575 25#	14575 25#	14575 25#	since 01/14, last log 06/22
x							0450		E11	03	7469 41#	7469 41#	7469 41#	7469 41#	since 02/10, last log 06/22 2nd transmission Thu 1730z
	x		x				0500		S11A	03	15690 38#	15690 38#	15690 38#	15690 38#	since 05/14, last log 06/22
x		x					0510		S11A	03	13537 65#	13537 65#	13537 65#	13537 65#	since 08/19, last log 06/22
				x		x	0600		E11	03	9150 35#	9150 35#	9150 35#	9150 35#	since 04/15, last log 06/22
x		x					0640		E11	03	15800 94#	15800 94#	15800 94#	15800 94#	since 07/17, last log 06/22
	x		x				0645		E11	03	8091 51#	8091 51#	8091 51#	8091 51#	since 07/09, last log 06/22
x			x				0700		S11A	03	9339 47#	9339 47#	9339 47#	9339 47#	since 04/10, last log 06/22
	x			x			0700		E11	03	8680 57#	8680 57#	8680 57#	8680 57#	since 01/12, last log 06/22
					x	x	0700		E11	03	7377 49#	7377 49#	7377 49#	7377 49#	since 07/15, last log 06/22 until 02/22 0730z
x		x					0715		E11	03	18030 75#	18030 75#	18030 75#	18030 75#	since 06/21, last log 06/22
	x			x			0715		E11	03	10429 63#	10429 63#	10429 63#	10429 63#	since 02/11, last log 06/22
x			x				0745		E11	03	9610 26#	9610 26#	9610 26#	9610 26#	since 03/14, last log 06/22 2nd transmission Thu 1530z
	x		x				0745		E11	03	14940 22#	14940 22#	14940 22#	14940 22#	since 01/20, last log 06/22
		x		x			0745		E11	03	15720 34#	15720 34#	15720 34#	15720 34#	since 06/17, last log 06/22
	x	x					0820		E11	03	17378 13#	17378 13#	17378 13#	17378 13#	since 12/18, last log 06/22
			x	x			0820		E11	03	4909 43#	4909 43#	4909 43#	4909 43#	since 10/09, last log 06/22
x				x			0830		E11	03	15720 18#	15720 18#	15720 18#	15720 18#	since 07/15, last log 06/22 until 02/22 0730z
					x	x	0830		S11A	03	5149 37#	5149 37#	5149 37#	5149 37#	since 02/14, last log 06/22
x		x					0845		E11	03	12815 71#	12815 71#	12815 71#	12815 71#	since 09/10, last log 06/22
	x		x				0845		E11	03	14972 15#	14972 15#	14972 15#	14972 15#	since 07/17, last log 06/22
x		x					0900		E11	03	9052 53#	9052 53#	9052 53#	9052 53#	since 10/05, last log 06/22
x				x			0915		S11A	03	6814 48#	6814 48#	6814 48#	6814 48#	since 04/19, last log 06/22
		x	x				0930		E11	03	6923 27#	6923 27#	6923 27#	6923 27#	since 02/14, last log 06/22
	x			x			1000		E11	03	12153 30#	12153 30#	12153 30#	12153 30#	since 11/16, last log 06/22
x		x					1045		E11	03	8545 69#	8545 69#	8545 69#	8545 69#	since 03/18, last log 06/22
	x	x					1205		E11	03	6304 46#	6304 46#	6304 46#	6304 46#	since 03/10, last log 06/22
	x		x				1230		E11	03					since 10/11, last log 04/22 Nov-Feb & May-Aug at 1645z
x			x				1300		E11	03	5737 31#	5737 31#	5737 31#	5737 31#	since 07/14, last log 06/22
	x			x			1400		S11A	03	7772 42#	7772 42#	7772 42#	7772 42#	since 02/10, last log 06/22
	x				x		1430		E11	03	12984 91#	12984 91#	12984 91#	12984 91#	since 10/15, last log 06/22
			x				1530		E11	03	10356 26#	10356 26#	10356 26#	10356 26#	since 06/14, last log 06/22 2nd transmission Mon 0745z
					x	x	1530		E11	03	5082 36#	5082 36#	5082 36#	5082 36#	since 03/14, last log 06/22
	x					x	1605		E11	03	5231 23#	5231 23#	5231 23#	5231 23#	since 11/15, last log 06/22
	x		x				1645		E11	03	14575 33#	14575 33#	14575 33#	14575 33#	since 10/11, last log 06/22 Mar/Apr/Sep/Oct at 1230z
		x		x			1715		E11	03	7863 97#	7863 97#	7863 97#	7863 97#	since 02/15, last log 06/22
			x				1730		E11	03	8088 41#	8088 41#	8088 41#	8088 41#	since 03/10, last log 06/22 2nd transmission Mon 0450z
x						x	1745		E11	03	14410 24#	14410 24#	14410 24#	14410 24#	since 04/18, last log 06/22
				x		x	1815		E11	03	12229 92#	12229 92#	12229 92#	12229 92#	since 05/16, last log 06/22
			x			x	1850		S11A	03	12457 28#	12457 28#	12457 28#	12457 28#	since 06/17, last log 06/22
x			x				1900		E11	03	7600 64#	7600 64#	7600 64#	7600 64#	since 05/16, last log 06/22
		x			x		1910		E11	03	4783 39#	4783 39#	4783 39#	4783 39#	since 02/14, last log 06/22
				x		x	1910		E11	03	9610 61#	9610 61#	9610 61#	9610 61#	since 04/17, last log 06/22
			x			x	2000		E11	03	5409 52#	5409 52#	5409 52#	5409 52#	since 05/15, last log 06/22

XPA1 Sched c and XPA2[Sched m & p] Russian Intelligence and/or Diplomatic Multitone Systems
[Radiogramma] Transmission Schedules.

Zulu >	XPA1 Sched c			XPA2 Sched m			XPA2 Sched p		
Month v	Tuesday/Thursday H+10 H+30 H+50 0710 / 0810z			Sunday/Tuesday H 00 H+20 H+40 1200/2100			Monday/Wednesday H 00 H+20 H+40 0700 / 0800z		
Jan	12157	13462	14374	10921	12221	13521	11493	13393	13993
Feb	13397	14413	15972	11163	13363	14563	13387	13887	14787
Mar	12132	13453	14576	13384	13984	14984	13931	14831	16131
Apr	10428	11431	13441	14442	15842	16342	11409	12209	13409
May	11169	12179	13431	13376	11576	10776	12148	13448	13948
June	11421	12151	13972	13427	12227	10827	12148	13448	13948
July	10446	11474	12175	13394	12194	10794	12148	13448	13948
Aug	10234	11511	12117	12159	11559	10559	12152	13552	13952
Sept	10862	11571	12216	13914	15814	16314	12152	13552	13952
Oct	12167	13437	14972	14469	16169	17469	13372	14672	15872
Nov	13978	14859	15871	14783	13883	12183	11529	13429	13929
Dec	11531	12137	13932	10807	12207	13507	11493	13393	13993

XPA1 and XPA2 Wednesday/Friday schedules

Zulu >	XPA1 Wed/Fri Schedule			XPA2 Wed/Fri Schedule		
Month v	H+10 1210 / 1310z	H+30	H+50	H 00 1200/2100z	H+20	H+40
Jan	14852	13952	11552	10726	11426	12226
Feb	14374	13374	11474	11575	13375	13975
Mar	14451	13451	12151	12139	13539	14639
Apr	13368	12168	11168	14377	14977	15977
May	13419	12219	11419	12124	11124	10624
June	13545	12145	11145	13462	12162	11562
July	13368	12168	11168	12124	11124	10624
Aug	13491	12191	10691	13919	14719	16219
Sept	12137	11137	10237	13484	14684	15984
Oct	14564	13564	11464	13452	14452	15852
Nov	13875	13375	10875	10968	12168	13368
Dec	13465	12165	10265	9389	10289	11589

[illegible]

SPECIAL MATTERS

Thanks to all our contributors:

Ary, Edd, BR, CC, Danix, DanAr, E, HH, HJH, JkC, Jochen, KW, Malc, MaleAnon, PoSW, PLdn, RC, RS, RNGB, tiNG



Apologies to anyone missed.

MESSAGES:

E: Thanks 'E', splendid stuff. Please thank your source. We're not putting in anything other than tech stuff concerning RUS/UKR. 4785kHz heard, no idea of its purpose. All's well here tnx

RELEVANT WEBSITES

ENIGMA 2000 Website:

<http://www.enigma2000.org.uk>

Frequency Details can be downloaded from:

<http://www.cvni.net/radio/>

More Info on 'oddities' can be found on Brian of Sussex' excellent web pages:

<http://www.brogers.dsl.pipex.com/page2.html>

Time zone information:

<http://www.timeanddate.com/library/abbreviations/timezones/>

2022

Source: Vertex42.com

January							February							March						
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
						1			1	2	3	4	5			1	2	3	4	5
2	3	4	5	6	7	8	6	7	8	9	10	11	12	6	7	8	9	10	11	12
9	10	11	12	13	14	15	13	14	15	16	17	18	19	13	14	15	16	17	18	19
16	17	18	19	20	21	22	20	21	22	23	24	25	26	20	21	22	23	24	25	26
23	24	25	26	27	28	29	27	28						27	28	29	30	31		
30	31																			

April							May							June						
S	M	T	W	Th	F	Sa	S	M	T	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
						1 2	1	2	3	4	5	6	7				1	2	3	4
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30		

July							August							September						
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
						1 2			1	2	3	4	5 6					1	2	3
3	4	5	6	7	8	9	7	8	9	10	11	12	13	4	5	6	7	8	9	10
10	11	12	13	14	15	16	14	15	16	17	18	19	20	11	12	13	14	15	16	17
17	18	19	20	21	22	23	21	22	23	24	25	26	27	18	19	20	21	22	23	24
24	25	26	27	28	29	30	28	29	30	31				25	26	27	28	29	30	
31																				

October							November							December						
Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F	Sa
						1				1	2	3	4 5					1	2	3
2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10
9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17
16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24
23	24	25	26	27	28	29	27	28	29	30				25	26	27	28	29	30	31
30	31																			

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